THE

Erasmus Wilson Lectures

ON

EVOLUTION IN PATHOLOGY.

Delivered at the Royal College of Surgeons.

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LECTURE III.

THE ETIOLOGY OF NEOPLASMS.

MR. PRESIDENT AND GENTLEMEN,—The term "tumour" has been applied to so many kinds of growth, and used so loosely, especially in clinical work, that it ceases to carry with it any definite significance. It is necessary to adopt some rigorous limitation to the term, or choose a name which shall enable us to discriminate between true tumours and the curious medley with which by the majority of writers they are confounded. A neoplasm may be defined as *a new growth characterised by histological diversity from the matrix in which it grows; it is distinguished from inflammatory new formations by the variety of its forms, mode of origin, and the frequent inherent tendency it has to increase.* This definition excludes hyperplasia of organs, infective granulomata, and the like. With regard to the histological diversity exhibited by a neoplasm, it should be mentioned that it may more or less resemble the matrix tissue, but certain features may always be detected whereby their heteroplastic nature may be demonstrated.

Few subjects have exercised the ingenuity of pathologists more than the etiology of neoplasms. It is unnecessary to recapitulate the various theories which from time to time have found adherents. There is no exclusive theory which will explain the causation and mode of origin of all known neoplasms; indeed, the various groups require separate consideration. The most scientific method of grouping neoplasms is an embryological one, leaving the histological details to determine the varieties. This mode of classification assumes considerable importance when considering the etiology of neoplasms. In this way they may be arranged in three groups: (1) the Mesoblastic group, including the connective-tissue growths; (2) the Epiblast and Hypoblast group, comprising adenomata, carcinomata, and papillomata; and (3) the Teratomata—neoplasms containing tissues derived from the three embryonic layers.

Cohnheim's theory, which ascribes the origin of neoplasms to persistent rudiments, is of all hypotheses that which has most to recommend it, if the term "tumour" be used in its most restricted sense. Throughout this lecture the expression "germinal rudiment" will be used in a more extended sense than that in which Cohnheim employed it. At the outset it will be well to ask the question, Do germinal rudiments, such as Cohnheim's theory demands, exist? and have we any evidence to show that such germs may become tumours? The origin of true cysts from functionless ducts and tubules is a fact which no one can dispute; for example, the cystic dilatation of the tubules comprising the parovarium, paradidymis, and ducts of Gartner in man and animals. If we receive without demur the origin of cystic structures from functionless tubular organs, or cyst-germs, as we may call them, why should the origin of solid neoplasms from rudiments be doubted, especially if such untransformed tracts of tissue can be demonstrated unequivocally to be heteroplastic in their nature? Of course it is far easier to demonstrate the origin of cysts from pre-existing germs than in the case of neoplasms it is ever likely to be. Nevertheless, we are certainly able to show that in the region where particular tumours are more prone to occur, there is embryological testimony to explain why they occur there. An epithelioma on the lip is what would be expected, but a similar growth starting in the midst of a block of cartilage is incomprehensible. In the same way a piece of cartilage in the midst of the shaft of a femur of a boy of five years is cartilage in the wrong place; nevertheless, such islands are to be met with by those who care to expend time and labour in searching for them. Their existence has been known for some years, and, as Virchow was the first to point out, they may in later life become the starting-point of enchondromata. I have seen very many of these cartilage islands, especially in connexion with the epiphyses and diaphyses of long bones, in rickety animals and children. Not only do these examples teach us in the most positive terms that embryonic rudiments of enchondromata exist, but they teach us something of the evolution of neoplasms. In the fact that at an early age our skull is mainly cartilage, we agree with the cartilaginous fishes, sharks, rays, and the like, whose skulls never advance in development higher than cartilage impregnated with salts of lime; and as we advance to osseous fishes and amphibians the overlying bones gradually bring about absorption of the cartilage in different places; but much exists throughout the life-time of the animal, and in the skulls of mammals, even the highest, we find traces, in the oldest, of this important matrix tissue, yet in spite of this some cavil and say embryonic rudiments cannot exist in the adult. Surely they are not in earnest. Frequent spots for the existence of these belated rudiments are the region asterion immediately posterior to the external auditory meatus, the neighbourhood of the nasal fossæ, the septum nasi, the lower jaw, and the vertebræ. The regions just mentioned are favourite situations for enchondromata and osteomata. A true osteoma may be regarded as simply a higher development of an enchondroma. If, then, we find a cartilage island, it would be impossible to say, supposing it to develop into a neoplasm, whether it would become a cartilaginous or an osseous neoplasm.

Moles and nævi may be regarded as tumour germs; many instances are on record where a small nævus untreated in early life later formed an angioma of considerable dimensions, and became a source of danger. All germs or rudiments do not become tumours. Three courses are open to them: (1) they may later in life undergo transformation into normal tissue; (2) they may remain quiescent throughout a long life; (3) irritation may stimulate them into abnormal activity. As to what constitutes irritation in this sense, nothing at present is definitely known. If we admit the origin of enchondromata, osteomata, and angiomata from rudiments, need we doubt the origin of other varieties of mesoblastic tumours from similar sources? There is this important fact in their favour—they are always confined to regions of the body where the elements of which they are composed are to be unequivocally demonstrated.

Before dismissing this question attention must be given to the sarcomata. I have no doubt that many cases of round-celled sarcomata are not genuine neoplasms, but the result of the irritation of micro-organisms. It is very necessary to be particularly cautious in deciding whether a given growth composed of round cells be a sarcoma or the result of a specific irritant, and more so if there be more than one growth present. Observations on animals have made me very sceptical regarding round-celled sarcomata. Mr. Pearce Gould has recently analysed the relation, which appears to exist in very many instances, between an injury and the appearance of a sarcoma, and has collected a goodly list of cases in support of the view in a paper read before the Medical Society in 1885. So far as my observations on animals have extended, it is interesting to note that sarcomata are found with greater frequency in those parts exposed to injury. In fish, the tails and fins are the parts most affected. In frogs, the limbs are the most frequent situations; in birds, it is the neck and prominent parts of the wings. In horses, sarcomata have followed blows on the jaws; I have seen a sarcoma develop on the head of a cat after being struck with a stick; and in the case of an ox which broke its horn, a huge sarcomatous neoplasm subsequently developed from the stump. Careful examination of some of these cases seems to support the notion that after the injury the inflammatory tissue, or tissue of repair, exceeds normal limits, develops erratically, and plays the part of a tumour germ.

We must proceed to consider the second group of neoplasms, whose characteristic features are the following:—In addition to mesoblastic, they contain epithelial elements derived from either the epiblast or the hypoblast, and in their structure they more or less resemble glands. If the

resemblance is close, the neoplasm is termed an adenoma, and the cells clothe the alveoli in a regular manner; but if the cells are merely tumbled in confusion in the alveoli, it is called a carcinoma. It is necessary to discriminate between hyperplasia of a gland and a glandular neoplasm; the distinction is simple: the latter is impotent to produce the secretion normal to the gland. Another feature connecting carcinomata with the secreting glands is their relation to bloodvessels. The cells of which a gland is composed do not come directly in contact with the bloodvessels, but are separated from them by lymphatic spaces. It is well known that cancers are poorly supplied with blood, but contain an abundance of lymphatics. Further, cancers in their mode of development mimic glands. Glands commence by a down-growth of epithelium from the hypoblast or epiblast, as the case may be, into the deeper layers of the mesoblastic tissues beneath. This may be well seen in a section of a fœtal thumb at the fourth month of intra-uterine life. The sweat glands appear as little flask-shaped diverticula. This may be taken as a type of gland development generally. If, later in life, irritation, local or otherwise, affect the tissue, abnormal epithelial growths may occur, and, rising above the general level, produce a wart, or dipping into the sub-epithelial tissues, as in the early stage of gland development; but failing sufficient formative energy, either from decline of vigour or general constitutional debility, the new tissue never develops functionally, runs riot, and originates tissues of low vitality—carcinomata. Such in-growths may occur in the neighbourhood of any gland, mucous, sebaceous, mammary, and others, as diverticula from the acini; and according to the arrangement and variety of the cells and stroma, so we term them "epithelioma," "scirrhus," "encephaloid," and the like. There is no valid reason why these abnormal down-growths of epithelium should not be considered as tumour germs, in the same sense as the little masses of cartilage lodged in the interior of a long bone. It may be asked why should cancer be more frequent in the old or debilitated than in the young and vigorous? The answer is, young trees bring forth the best fruit because in them vigorous growth is at an acme; when this fades, then that which is inferior is produced. So with glands. Irritation in the young produces papillomata in the old cancer. This is not only true of man, but also of animals. Warts occur in the young, and cancer in the old ones. Cancer is, however, very rarely met with in animals other than man.

We must now consider the third group of neoplasms, which differ from the preceding groups in that their elements are derived from the three germinal layers, epiblastic, hypoblastic, and mesoblastic, or, as they were conveniently styled by Virchow, teratoid tumours. These neoplasms are always congenital, and are remarkable for the variety of elements composing them. They may contain fibrous tissue, bone, cartilage, muscle, skin, hair, nerves, glands, or indeed any tissue. Teratomata are especially liable to occur in those situations where the three blastodermic layers are brought into direct continuity with each other during fœtal life, but the connexion is only temporary. Critically examined, we shall find the positions of these temporary unions are often indicated by a passage which may exist for a longer or shorter period in the embryo. As a matter of fact, we get what I have been in the habit of calling an obsolete canal or passage. By this I mean canals which in the ancestors of mammals were functional, but they reapppear for a time in existing forms in obedience to the great law, heredity. As examples of obsolete canals we may take: (1) the curious recess at the top of the pharynx, which brings the infundibulum of the third ventricle into relation with the buccal involution; (2) the neurenteric passage, which brings the central canal of the cord and the alimentary canal into relation round the caudal end of the notochord; (3) the post-anal gut; (4) the branchial arches; and (5) the developmental history of testis, ovary, and Wolffian duct support the same view. Teratomata occurring in the sacral region are not a simple group, and Braune's observations long ago made us acquainted with the fact that some of the cystic forms are connected with the spinal canal and lie posterior to the coccyx, whilst others lie anterior to that structure. Braune also pointed out that the cystic teratomata connected with the spinal canal are due to dilatations of the spinal meninges—in fact, a spina bifida. Those anterior to the coccyx are, according to Braune, to be regarded as an abnormal growth of Luschka's glands, and other writers adopt this view. It is far more reasonable, however, to believe that these growths originate as abnormal dilatations of the post-anal gut—a section of the alimentary canal which for a certain period of embryonic life exists posterior to the anus in man and very many if not all vertebrata. The minute structure of this variety of teratomata agrees in every particular with the histological details of this section of the gut. With regard to the cystic sacral tumours connected with the meninges, it is not always that after birth the continuity of the cystic interior with the spinal canal can be made out, as in the following case reported by Virchow. A negro child a few days old presented a tumour on the left buttock to one side of the middle line. It was removed by a surgeon, Dr. Ludwig Wolff, in Central Africa, who believed it to be a lipoma. After examining the tumour, Virchow came to the conclusion that, notwithstanding its lateral situation, it was in reality a diverticulum from the spinal meninges. At the opposite end of the notochord we detect similar conditions. There may be a hernia of the spinal meninges through the floor of the sella turcica, or we may get a tumour containing skin, hair, nerves, muscle-fibre, and the like. In the neck, in association with the branchial arches, cysts arise, or in rarer cases tumours composed of complex elements. The same is equally true of the ovary and testis. They arise in connexion with the genital ridge, and at a certain period of their development are in intimate association with the peritoneal epithelium, and for a time are connected with it by a series of curious canals known to embryologists as the peritoneal funnels. In addition to this, the Wolffian duct at its commencement lies closely associated with the epiblast. Viewed in this light, I regard teratomata, not as a group of curiosities, but as a class of neoplasms full of interesting details. I regard them as arising from pre-existing tubules or ducts, which in the normal development should become obliterated, but they may in fœtal life dilate and become mixed with various other tissues in their immediate neighbourhood, and as they lie on the borderland of mesoblastic, epiblastic, and hypoblastic elements, they become incorporated with them, and form in many instances amorphous masses, and constitute one of the most powerful witnesses to Cohnheim's theory of "tumour germs." The relation of the teratoid tumours to obsolete canals is illustrated in a very striking manner in the tongue. Professor His has recently given a full account of the development of the tongue, and describes in detail the formation of a canal which runs from the foramen cæcum on the dorsum of the tongue downwards to the third branchial arch, and finally ends in the vesicle from which the middle portion of the thyroid gland takes origin. Later the canal is divided into two parts, due to the formation of the body of the hyoid bone. The one in connexion with the tongue is known as the lingual duct, and terminates in the hollow of the hyoid bone. It may occasionally be demonstrated in adult life, situated between the genio-hyo-glossi muscles. This situation is the favourite one for dermoid cysts. The lower portion of the duct, known as the thyroid duct, may sometimes be detected in those cases where we find a middle lobe to the thyroid body. It is extremely interesting to note that the structure and mode of development of the thyroid gland closely resemble those congenital coccygeal tumours lying anterior to the coccyx—e.g., (1) their association with the alimentary canal; (2) origin in a functionless tubule; (3) consisting of vesicles lined with cubical epithelium and bound together by cellular tissue.

Although not strictly tumours, yet possessing so much interest from the point of view of evolution, a few words must be said concerning congenital cervical cysts. These formations, as Mr. Thomas Smith has so well pointed out, all lie beneath the deep cervical fascia; they may be unilateral or involve the lateral and anterior regions of the neck, follow the deep fascia, and extend into the axilla, or, in rare cases, for a little distance into the mediastinum. Cases of this nature have been described and figured by Messrs. Birkett, Hutchinson, Smith, and Treves. In that the cyst extends at times into the axilla is of interest, for this circumstance first induced me to attempt the following explanation. In some of the lower animals, especially the chimpanzee and howling monkeys, a very large subfascial air sac connected with the larynx extends from the hyoid bone to the manubrium sterni, and laterally under the posterior triangles even into the axilla. The cysts in the human subject agree in anatomical details with the cervical sacs of the monkeys in such a striking manner that I am of opinion we have in these cysts repetitions of simian characters.

In conclusion, it seems impossible to escape from the

conviction that anyone ambitious of becoming a scientific pathologist must first be a sound human anatomist; he must also acquire a tolerable knowledge of comparative anatomy and keep well abreast of the teachings of embryology. Having acquired a competent knowledge in these subjects, he will then, in spite of himself, become a firm believer in the fundamental principles of the grand doctrine of "evolution."

Clinical Lecture
ON
CATARACT.

Delivered at the Eye Infirmary, Newcastle-on-Tyne.

BY C. S. JEAFFRESON, F.R.C.S. ED.,
SURGEON TO THE INFIRMARY.

GENTLEMEN,—This evening I purpose discussing the question of "Cataract and the operations for its relief." I need not say that the theme is one which is second to none in importance within the whole range of surgery, whether we look at it from its own intrinsic interest, or whether we consider the brilliant results which operative interference brings about in those who are the subject of this disease. An amputation or the resection of a joint may save or prolong life, but at best it leaves a deformed and mutilated organism, and this result is only attained at great risk to life and after great and prolonged physical suffering. A successful and well-executed cataract operation is practically painless. In a few days the wound is healed and the patient finds himself restored to all the blessings and joys which sight alone can afford him. Indeed, for many sight is only second to life itself, and there are not a few who would not care to live without it. There is something magical in this transition from darkness to light, and if the patient experiences pleasure and gratification which at times he can scarcely find words to express, the surgeon, as the indirect author of his pleasure, shares it equally with him. I know no feeling more gratifying and which inspires one with more legitimate conscious pride than that which occurs to us when, on taking the first peep at a case of cataract, we see a clear cornea and a dark untroubled pupil. The outline of objects first dawns upon the patient, gradually the image becomes more distinct, and when he realises that he sees once more his face illumines and he gives way to his joyful excitement. Equally bitter, on the other hand, is the feeling should disappointment meet us at each step of our examination, and no ray of light penetrates to cheer the hopeful and confiding sufferer; and doubly bitter will those feelings be if our inner consciousness remind us that perhaps the want of more care or more knowledge, or something left undone, has led to the untoward result. In operations, as in all other events in life, nothing tends more to eventual success than early disappointments, and if we take proper lessons from our failures our proportion of successes will steadily increase. If there is one thing more than another which characterises the surgery of the present day and has brought it to its pitch of perfection, it is the amount of personal care and attention the surgeon gives to each individual case, and if it is necessary in general surgery it is doubly so in ophthalmic surgery. A surgeon's success is generally in exact proportion to this element in the treatment, and you will all find—I am here speaking to the younger members present—that it is far more satisfactory, and in the end answers better in every way, to do a moderate amount of work thoroughly well than to do a large amount indifferently. I can only in this lecture attempt to give you a rough sketch of the matter in hand, for its full discussion would take many lectures; but to make matters clear I must refer briefly to the anatomy of the parts concerned.....

Now, gentlemen, as in the physiological state the lens and its capsule are absolutely transparent, so any opacity in one or the other is a pathological condition, and constitutes what we call a cataract—an objectionable name, we must allow, but one sanctioned by time, and which we must be content to adhere to. As there are necessarily many varieties of cataract, so there have sprung up many classifications; none of them are very complete, and some are not very scientific, and it is not till we have enumerated them all that you will appreciate the difficulties in the matter. In the first place, anatomical position has been taken as a basis, and we speak of lenticular and capsular cataract according as the opacity is situated in the lens or its capsule. Lenticular cataracts are cortical or nuclear according as the peripheral or central parts are affected; or, again, lamellar when only an intermediate layer between the nucleus and the cortex is opaque. Capsular cataracts, as we shall see by and bye, have no real existence, and depend upon changes in the layer of cells immediately below the capsule; these changes may take place in the anterior or posterior capsule, although in the posterior they are due to different causes. When close to the poles, they are called anterior and posterior polar cataracts; when the lens and capsule are both affected, we speak of capsulo-lenticular cataracts. When age forms a basis for classification, we speak of infantile, juvenile, and senile cataracts; when consistency, we speak of hard, soft, and cretaceous cataracts. Again, when we classify them in accordance with the conditions which have led to their development, we speak of traumatic, diabetic, senile, and secondary cataracts. By far the majority of cataracts which come under the notice of the surgeon are lenticular, and occur in elderly persons; and there are two ways in which they usually commence: the sclerosis or condensation or opacification which attends and is the essence of the disease commences either in the centre of the lens, when it is called nuclear, or attacks the peripheral parts of the cortex, when it is called cortical; although in the more advanced stages it is not always easy to say to which of these categories the cataract has chiefly belonged. At the commencement there is generally but little difficulty in deciding. The nuclear cataract occurring in the centre of the lens gives rise to ill-defined nebulous opacity, which sometimes produces more disturbance of vision than a superficial examination would lead us to expect. The cortical appear as star-like radii in the periphery; from their situation at the commencement they interfere comparatively little with vision, and even when advanced, in comparison with the nuclear, do not seem to impede the light so much. In my experience nuclear cataract occurs later in life than the cortical variety, which is certainly the more common of the two, and may be found in most of those cases in which the cataract, though undoubtedly senile, occurs at a comparatively early stage. Cortical and nuclear cataracts, gentlemen, form the majority of the cases which occur in old persons, or the so-called senile cataracts, but there are other forms of opacity affecting the lens substance. We have certain forms of cataract which may be called milky cataracts, in which the cortex does not follow the usual form of stillate degeneration, but breaks down somewhat rapidly and equably in all its parts; it may and does not infrequently pass into a fluid state, in which case the nucleus floats free in it, and we have what is termed a Morgagnian cataract. This usually occurs at a less advanced period of life than senile cataract, and is sometimes a monocular affection. Again, we have another form of lenticular cataract which is called the laminar or lamellar, which consists of an opacification of certain layers of the lens, leaving its nucleus and peripheral parts transparent. This is always a congenital form of cataract, though by no means the only one. Capsular cataracts may occur in connexion with cortical or lenticular cataract as a senile change, but it is not usually till a late stage that the intra-capsular cells become affected. Sometimes, however, the opacity commences in this situation, usually in persons of middle age, and who are the subjects of inherited cataractous tendencies. At the close of the lecture I hope to show you a case of this kind, in which numerous punctated opacities occupy the anterior surface of the lens within the capsule. One of the most common forms of capsular cataract is what is called the pyramidal or anterior polar cataract, because it occurs at the anterior pole of the lens. It is usually the result of purulent ophthalmia in early life, which, having led to a small central ulcer of the cornea and consequent loss of aqueous fluid, has caused the lens to project against and touch the posterior surface of the cornea, where it contracts adhesions blocking up the base of the ulcer. This allows the aqueous humour again to accumulate, leading to a detachment of the lens, which resumes once more its proper position, but leaving at the spot where it was in contact with the cornea a patch of inflammatory

exudation, which has sometimes a pyramidal form when viewed in profile. Iritis sometimes leads to capsular cataract by depositing inflammatory lymph on the surface of the capsule. Changes somewhat analogous to those which take place in the intra-capsular cells of the anterior portion of the capsule sometimes occur in the posterior pole, and we have then a posterior polar cataract. This is usually the result of inflammatory exudation from the anterior surface of the hyaloid covering of the vitreous. I shall refer later on to these opacities. The capsular opacities which are the common result of operations are really not capsular, but are usually the result of inflammatory exudation coating small portions of lenticular matter which have failed to escape with the rest of the lens at the time of operating.

These, then, gentlemen, are the chief forms of cataract met with in practice, although there are some rarer forms, notably what is called black cataract, the pathology of which is still somewhat obscure, but in which the lens assumes a very dark amber colour, approaching almost to black, and which by some is supposed to be due to the absorption of hæmatine. As you are well aware, certain constitutional conditions predispose to cataract. It frequently occurs in glycosuria, occasionally in albuminuria, and where there is a tendency to atheromatous arterial degeneration. In these cases the lens usually breaks down more rapidly than in ordinary cases of senile cataract. Traumatic cataracts are usually the result of some rupture of the capsule which allows access of the aqueous humour to the lens fibres. The rapidity with which they develop depends chiefly upon the size of the wound, partly upon the age of the patient, and other circumstances. Cataractous opacity may follow blows upon the eye or orbit, without any evidence of rupture of the capsule; in these cases the nutrition of the lens is impaired by the concussion either through some disturbance in the choroid and ciliary processes or nervous reflex influence.

The causes of cataract are still to a great extent wrapped in obscurity. In many senile cases the changes may be looked upon as one of the expressions of tissue degeneration which are common in advanced life. We know how the skin loses its elasticity and wrinkles, and how the hair turns grey and falls off. The lens in embryonic life is developed from the epidermic layer of the blastoderm, and it shares the life history of the original structures from which it grew. Although we are not fully acquainted with the method of its nutrition, we know it must be carried on through the medium of the fluids which surround it, and that anything which impedes the due circulation of these fluids and the blood-supply from which they are derived must react upon the lens. In this way there can be no doubt the secondary cataracts of glaucoma and some inflammatory affections are produced. And it is probably from some change in the density of the media that surrounds the lens that diabetic cataract results. It is perhaps too, in this way, by disturbing the balance of endosmose and exosmose, that those persons are more prone to cataract whose face and eyes are constantly being exposed to high temperatures combined with brilliant illumination—such as bottle-makers, blacksmiths, furnace-men, &c. The former trade has a special tendency to produce cataract, which is well known to the men, and has furnished me with many cases.

Now, gentlemen, I come to the more practical part of the question—What are the symptoms, objective and subjective, of cataract? With what is the diagnosis likely to be confounded? Speaking now of ordinary senile cataract, age is the first point which attracts our attention. Degeneration of the lens-tissue as the result of uncomplicated senile changes is rare before forty-five years of age, although it may occasionally occur earlier, especially if there is, as is not unfrequently the case, an inherited tendency to the disease. I have at present under my care an old lady seventy years of age who suffers from senile cataract; two of her daughters, one thirty-nine the other forty-one, each suffers from incipient but well-marked cataracts. Again, some years ago, an elderly gentleman was under my care who suffered from cataract, his brother was the subject of the same disease, and two of his brother's sons, aged thirty-nine and forty-one, were both similarly afflicted. There can be no doubt, then, that it is a malady which shows strong hereditary tendencies. Well, then, gentlemen, when a patient advanced in years comes to you and complains of failing vision, especially for distant objects, the symptoms being unaccompanied by pain in the eye or head, and there having been no history of any kind of inflammatory affection, your first suspicion will be of cataract. Your suspicions will be materially increased if the patient complains of seeing worse on a bright day, and better towards twilight and dusk. If you give him type to read, he will probably turn his back to the window and try to assist himself by shading his eye with his hand. He may complain of halos round lights or of their looking distorted or drawn out, perhaps even of monocular polyopia. It may seem superfluous to explain the *rationale* of these symptoms, because some of them are obvious. The bright light contracts the pupil, leaving a comparatively small opening in an already hazy lens. In nuclear opacity, therefore, the sight will be much interfered with, as it occupies the part of the lens opposite the pupil; in cortical cataract much less so, as only the peripheral parts are affected; in some cases a contracted pupil may even help sight. The distortion of lights and halos is produced by changes in the refrangibility of the lens, the result of alteration in its density; and the polyopia is the result of transparent passages being left in the cataractous lens, each such passage producing a faint image of its own. Although advanced cataract can generally be diagnosed objectively at once without difficulty, in the earlier stages it is not always so easily detected. Where there is doubt use should be made of oblique illumination, and in still more doubtful cases the pupil should be dilated with atropine. In this way we shall be able to clear up all doubts as to the nature, condition, situation, and probable rate of development of the cataract. This method of examination, together with the use of the ophthalmoscopic mirror, will further enable us to determine if the cataract is complicated with other diseased conditions, a point of much importance when the advisability of an operation is in view. At an early part of this lecture I stated how at first sight the greenish-grey appearance of the lens, which is natural in advanced life and is more marked in some diseased conditions, might be mistaken for cataract. Oblique illumination dispels any doubt in these cases, and the clear red reflex from the fundus when the ophthalmoscopic mirror is used confirms this proof. Patches of opacity in the lens, when viewed by the mirror alone, appear as dark objects with the red reflex of the fundus as a background. This phenomenon, which is clear and unmistakable, is owing to the reflection of light from the fundus being obstructed. It occurs equally with opacities in the vitreous chamber, but these are not, when care is taken and oblique illumination used, very liable to be mistaken for opacities in the lens. Indeed there are few or no maladies which can easily be mistaken for cataract when proper precautions are used; but cataract is so frequently complicated with other conditions, and these may play such an important part in lowering vision and influencing the prospects of an operation as to deserve our greatest attention. Lenticular opacity is liable to occur in glaucoma, in iritis after synechia have taken place, in high degrees of myopia, after detachment of the retina, in the final stages of retinitis pigmentosa, and other conditions. I may perhaps best clear up the difficulties which beset the diagnosis of a case of cataract by stating the symptoms we should expect to be present in an uncomplicated case, and afterwards referring to the inferences which may be drawn from any departure from these lines. In an ordinary case of uncomplicated cataract, the result of senile changes only, we should expect, first, that there should be an absence of any signs of diabetes, albuminuria, or other blood contamination. Locally there should be a well-defined round and active pupil, both to direct and indirect stimulation. The loss of sight should be only in proportion to the visible opacity in the lens. This is a symptom which it is difficult to estimate without considerable experience, as it is liable to much variation. The field of vision should have undergone no diminution of its area. The tension of the eye should be the subject of the most careful examination, and any hyper-tonicity should lead to a minute investigation of the early symptoms and history of the disease. When a case of cataract, gentlemen, presents all these favourable symptoms, we may look hopefully to a successful issue, but any departure from them, however slight, should make us give a guarded prognosis. To some of these points I shall, however, refer again.

(To be continued.)

HOSPITAL SUNDAY in Leeds was held on the 21st inst., when collections were made in the various churches and chapels of the town and district.

TWO CASES OF

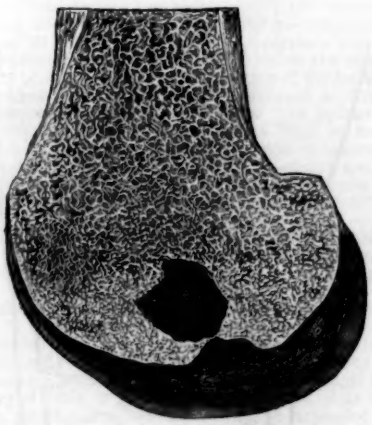
GUNSHOT INJURY IN THE NEIGHBOURHOOD OF THE KNEE-JOINT,

WITH LODGMENT OF THE PROJECTILE IN THE CONDYLES OF THE FEMUR.

BY SIR WILLIAM MAC CORMAC.

THE interesting case reported by Dr. MacGillivray in THE LANCET of December 12th, 1885, where he successfully removed half an Enfield bullet which had remained lodged in the internal condyle of the femur for thirty years, and Professor Longmore's valuable comments thereon in THE LANCET of January 2nd, 1886, induce me to publish notes of two cases recently under my care, in each of which a bullet had remained for some time lodged in the condyles of the femur. Dr. MacGillivray's case illustrates the fact that a bullet lodged in bone is apt to produce mischief sooner or later, and that after even protracted intervals of quiescence inflammation recurs, abscess forms around the bullet, and adjacent structures may become seriously implicated. This happened notably in one instance under my own observation, where a man who had been shot in the

FIG. 1.



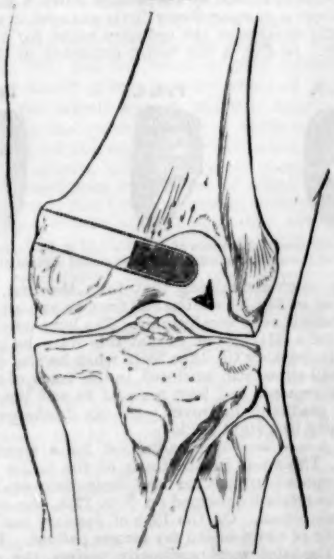
Section of femur, showing a bullet which had lodged in the condyles for fifteen years.

sacrum during the first New Zealand war suffered at intervals great pain and distress from abscess and exfoliation of bone. The bullet could not be felt at the time, and it was not till an interval of thirty years had elapsed that the ball was discovered and extracted, the patient subsequently making an excellent recovery. This course I believe to be the rule in such cases; but the converse may occur, and of this a typical instance is recorded in the third volume of the "Surgical History of the War of the Rebellion," p. 372. Lieutenant Blake, aged twenty-five years, was wounded at Antietam in 1861, while kneeling to stop bleeding from a comrade, by a shot which, after traversing the elbow, entered the outer side of the left knee-joint. On examination the probe is stated to have freely entered the cavity of the joint, but no bullet could be found. He was sent to Boston, where he came under the care of Dr. Mason Warren. Both the knee and elbow-joints did perfectly well, and after two months the patient could get about. He recovered the movement of both joints, and could walk without any sign of lameness, the ball still remaining in the knee. He continued actively engaged in his business, suffering no kind of inconvenience until fifteen years later, when he was attacked with pneumonia, of which he died, the bullet having remained harmlessly in the outer condyle all this time. A necropsy was made, and I saw the specimen thus obtained in the Army Medical Museum at Washington. It is a most curious one. The ball is seen in the section completely fixed in the bone, without a trace of inflammatory disturbance about it. The bone is everywhere in direct contact with the bullet. There is no layer of granulation tissue or cavity. The articular cartilage covering the end of the femur is quite smooth and unchanged, except just over the bullet, where there is a cicatricial depression. At this point the bullet is not more than a line distant from the surface. (Fig. 1.)

The notes of the two cases following were taken by Mr. H. Duncan and Mr. E. Solly, and to the latter I am indebted for the admirable drawings showing the position of the bullet in each case, as well as for the drawings of the bullets themselves.

CASE 1. *Gunshot-wound of the condyles of the left femur.*—Arthur A——, aged thirty, an ex-officer in the French army, was admitted into St. Thomas's Hospital on June 4th, 1885, and discharged on June 26th. On Dec. 23rd, 1884, the patient received a bullet-wound from a Martini-Henry rifle on the inner side of the left thigh, just above the knee. He says it was fired from a distance of about eighty or ninety yards. He was out, he told us, with a French comrade on a hunting expedition in Senegal, on the West Coast of Africa, collecting wild animals to send to Europe for the Zoological Gardens. On one occasion they came unawares upon a lion, and the Frenchman, it seems, fired too soon from excitement, and shot A. A——, instead of the lion. He felt a "dull thud" on the inner side of the knee; blood escaped freely, which he tried to staunch, while his black servants went for help.

FIG. 2.



Lower end of left femur. The length and direction of the bullet track and the position of the bullet are indicated.

A doctor arrived, who, after probing the wound, declared the bullet must have fallen out, and the next day after the accident he was carried to the French military hospital at St. Louis, on the coast, and remained there from Dec. 24th, 1884, to May 4th, 1885. While in the hospital the knee became much swollen, he suffered great pain in it, and had several attacks of fever, the temperature rising, he stated, to 105°. A wire splint was applied. The wound continued to discharge freely. The knee became flexed and fixed, and continued very painful and swollen. From all this the joint would certainly appear to have been implicated. The wound was many times probed, and an exploratory incision was also made, but the bullet could never be detected, the surgeons declaring there was no bullet in the limb. Finally, the man was told that in order to save his life it would be necessary to amputate the limb. Fearing to have it done on the spot, he decided, contrary to the advice of the doctors, to sail for home, and came over to England in May, being admitted into St. Thomas's Hospital on June 4th. During the voyage home he greatly improved in general health.

On admission, a sinus was found opening just above the

internal condyle of the left femur, a probe, passed about two inches downwards and outwards across the condyles, tending towards the cavity of the knee-joint. The knee was quite stiff, and the parts around it swollen. He did not complain of pain, except on movement. In accordance with what he had been told when he left the African coast, he came to the hospital fully prepared to have his thigh amputated. I probed the sinus, and detected a body which I believed to be the bullet. (Fig. 2.) A Nélaton's porcelain probe was then passed in, and on withdrawal was found to be distinctly marked with lead.

June 6th.—Ether was administered, and, an Esmarch bandage having been applied, a director was passed into the sinus and an incision made down to the bone, the opening in which was sufficiently enlarged with the mallet and chisel. After some difficulty the bullet was then seized with a pair of toothed bullet forceps and extracted. A drainage-tube was inserted, and the wound, having been washed out, was dressed antiseptically with iodoform gauze. The dressings were applied before the compression was taken off, and on removal of the Esmarch tourniquet a considerable amount of bleeding took place, which soaked through the dressings and necessitated the opening up of the wound, which was then packed and fresh dressings applied. The limb was put up in a long outside splint, a MacIntyre not having been got ready. The bullet, of which a drawing is given (Fig. 3), weighed 194 gr., was about $1\frac{1}{4}$ in. long and $\frac{7}{8}$ in. in diameter. It presents longitudinal striæ, such as might be caused by its passage down a rifle-barrel, but is otherwise comparatively little changed in shape. It is not nearly so large as the ordinary bullet for a Martini-Henry rifle. In Fig. 4 the bullet extracted in the second

FIG. 3. FIG. 4. FIG. 5.

Bullets removed in the cases of A. A—— and R. L——, together with a similar ball from an unexploded cartridge.

case, very much resembling that from the first, is represented; and in Fig. 5 a similar ball from an unused cartridge.

7th.—Patient very comfortable. The long outside splint changed for a MacIntyre. From this date he progressed perfectly favourably till June 24th, when he was discharged with a small sinus, still unclosed, in the track of the bullet. Passive movements had been resorted to and the motion of the joint gradually improved. On his discharge he could flex it nearly to a right angle.

Arthur A—— was again admitted for a short time on Oct. 3rd. The sinus in the track of the bullet persisted. This was opened up, but no dead bone discovered, and the patient was again discharged on Nov. 17th, the sinus being then almost closed. On the 12th of January last I had an opportunity of again seeing my former patient. The movements of the joint were practically perfect, the sinus was closed, he suffered no pain or inconvenience, and could walk long distances without fatigue. He was, in short, perfectly well; he had married since he left the hospital, and intended to sail for Australia the following day.

CASE 2. *Gunshot wound of the condyles of the right femur.*—R. L——, aged twenty-five, a brother of one of my dressers, served as a gentleman trooper in Methuen's Horse during the late Bechuanaland expedition. On the afternoon of Sept. 11th, 1885, while sitting in his tent at dinner, with a mess-tin between his knees, a service revolver was accidentally discharged at a distance of about four or five feet, the bullet, weighing 240 grs., and measuring $\frac{3}{4}$ in. by $\frac{7}{16}$ in., having previously traversed the mess-tin, entered just above The right knee on the inner side, close to the adductor tubercle, and passed almost directly outwards. (See Figs. 6 and 7.) The patient was conveyed four or five miles in a "mealy" waggon to the hospital, keeping his knee flexed in the same position as at the time of the accident. He describes the pain felt at the moment of injury as resembling that which would be caused by a blow on the knee from a mallet. The amount of blood lost at the time or subsequently was but slight. On examination, however, soon after, by a surgeon, no foreign body could be felt, and neither pieces of clothing nor the bullet were discovered. The limb was placed in a splint, and dressed daily with carbolised oil and lint. The temperature was only once taken after the accident, when it was 101°. Two or three days afterwards the knee became swollen and very painful. The discharge was described as at first thin and red, subsequently it became whitish yellow. The patient was after a time conveyed to Cape Town, where he arrived on Oct. 3rd, and the next day he sailed for England, which he reached on Oct. 28th.

He was admitted into St. Thomas's Home on October 31st, and was next day examined by me. There was a sinus over the right internal condyle, discharging a small quantity of thin pus. The probe could be passed almost directly outwards, with a slightly downward direction, for nearly three

FIG. 6.

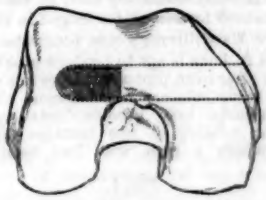


FIG. 7.

Lower end of the right femur, showing the position and direction of the bullet track in Case 2. (Half the natural size.)

inches. At the bottom the dull sensation of striking a bullet could be felt, and on introducing a Nélaton's probe the porcelain came out distinctly marked with the lead stain. There could be no doubt that the projectile was lodged in the external condyle of the femur, very close to its articular surface. The patella was movable, but the knee was painful, could only be very slightly bent, and the soft parts around the joint were infiltrated.

Nov. 2nd.—Ether having been administered and Esmarch's apparatus applied, I again introduced into the sinus a Nélaton's probe, and the porcelain on withdrawal was plainly seen to be streaked with lead. A vertical incision was then made over the posterior and inner aspect of the condyle for about $2\frac{1}{2}$ in., having the wound in its centre, and extending down to the bone. From this the soft parts and periosteur

were detached for about an inch around the opening made by the ball, which was then enlarged by the chisel and some pieces of bone removed. The projectile was now found firmly fixed in the cancellous tissue. By means of a pair of toothed forceps the bullet was speedily seized and withdrawn. A probe could now be passed into the interior of the bone for a distance of exactly 2½ in. from its surface, and the extremity must have reached nearly to the external aspect of the external condyle, while the bullet track could certainly not have been, at all events in some parts of its course, more than a quarter of an inch distant from the articular surface of the end of the femur. A double drainage-tube having been introduced, the wound was syringed out with carbolic acid solution of a strength of 1 in 40. The edges of the divided tissues were brought together by silk sutures, and the wound dressed with iodoform gauze and salicylic wool. A narrow wooden splint curved to the shape of the limb was applied posteriorly, and strips of Bavarian flannel soaked in plaster-of-Paris were applied anteriorly and laterally, the limb being bandaged to the splint from the foot to about half-way up the thigh.

3rd.—The patient has had a good night. Last evening's temperature was 100·8°, and this morning it is 100·4°. A slight oozing came through last night and a fresh dressing was applied.

4th.—Temperature last night 100·8°; this morning 99·6°. Wound dressed. It is looking healthy. New plaster-of-Paris splints were applied, and the wooden one was removed.

11th.—Temperature last night 100·2°; this morning 99°.

During the next week the patient did not complain of any pain, and he felt quite well. The temperature was normal. The stitches were removed on the 8th, when the wound was found to be united except in the position of the former sinus. The drainage-tube was gradually shortened as the bullet-track became filled with granulations. The patient got up on the 16th. From first to last he had little or no inconvenience. The joint under the influence of passive movements was becoming less swollen and supple, and he left for home on Nov. 28th, able to walk a long distance without the least difficulty. The sinus was quite superficial and on the point of closing. In a letter from Mr. L——, dated Jan. 14th, 1886, he says: "I can do as much walking and riding now as I ever did, and bend my right leg as far as the other." The bullet, of which a drawing is given in Fig. 4, was flattened somewhat at its extremity; it weighed 340 grains. A similar bullet, weighing 245 grains, is shown in Fig. 5, taken from an unexploded cartridge.

Remarks.—The two cases recorded are striking from the similarity of the injury in each. The bullets causing the damage were almost alike in size, although one was discharged from a rifle and the other at close quarters from a pistol. The ball traversed the expanded portion of the condyles transversely in both cases from within outwards, in each instance very near to the articular surface, lodging in the bone in both, and in both remaining undiscovered for a considerable time. In both, too, there were symptoms of inflammation in the knee-joint, some pain, fever, swelling, and subsequent stiffness, which passed off. It is difficult to believe that in either the injury could have been wholly extra-articular. Conical bullets such as these, and capable of penetrating the bone to so considerable a depth, would be very likely to cause fissures which would almost certainly extend to the joint surface, while the continued presence of the foreign body could scarcely fail, one would suppose, to excite articular mischief. Nevertheless, in neither of these two cases has any permanent ill result followed, and the function of the joint is in both perfectly restored. There is a strong presumption, without, I admit, any positive proof, that the knee-joint was implicated to a greater or less degree in each of these cases, yet recovery has ensued with a freely movable articulation, and certainly without in either case any special advantage in regard to treatment. Perhaps, after all, a gunshot injury of the knee may not be always so disastrous as it was at one time assumed to be. Langenbeck told me he had met with at least one hundred cases of penetrating wound of the knee-joint followed by recovery during the Franco-German war. Many cases of recovery after a bullet had traversed the joint and fractured the bones are recorded by the Surgeon-General of the United States army; and then there are the remarkable results published by Bergmann and Reyher obtained after antiseptic occlusion in the Russo-Turkish and other campaigns. During the American war 338 cases of unmistakable fracture involving the bones of the knee-joint made good recoveries after an altogether expectant plan of treatment—that is, both life and limb were preserved. Many of the cases besides the one which I have first quoted, are most remarkable, but for the details I must refer to the Surgeon-General's report. A conservative treatment, whenever it is possible to adopt it, is probably by far the most promising one for gunshot injury of the knee-joint, and it has proved the most successful, especially in recent campaigns. Excision of the knee for gunshot injury in time of war has hitherto been disastrous, while amputation has been very fatal also.

SYMMETRICAL SYNOVITIS OF THE KNEE IN HEREDITARY SYPHILIS.

BY H. H. CLUTTON,
ASSISTANT-SURGEON TO ST. THOMAS'S HOSPITAL.

THE fact that the condition of which the title of this paper gives the most prominent feature has been little noticed in our surgical literature tempts me to make a few remarks as to its clinical features. I have myself but little doubt that it is due to hereditary syphilis, for the subjects of this symmetrical synovitis who have come under my observation have always given other evidence, either past or present, of the disease. My own cases, of which the notes have been carefully kept, are seven in number. Mr. Nettleship, who has also taken a great interest in these cases, has kindly given me the notes of three others, which I have myself seen at the time they were under observation in the eye department at St. Thomas's Hospital. Mr. Lawford has also supplied me with another case during the last six months, which brings the total to eleven. I have, I am sure, seen many more of which I can find no accurate record; and I well remember, some years ago, soon after I began to take an interest in this subject, that Dr. Greenfield, who was then my colleague, drew my attention to several cases which had occurred in his practice. It must be remembered that my own cases were all out-patients, one or two only being admitted for a time to test the efficacy of splints and rest. The difficulty of keeping any notes in the out-patient room must be my excuse for this deficiency. The disease is, I am sure, a rare one, so that only a few cases will come under the observation of any one surgeon; for since my attention has been directed to this condition I have been on the look out for such patients, and have only met with quite a small number.

The average age of the patients recorded in the accompanying table was about thirteen, but they were mostly between the ages of eight and fifteen. The predominant features of the disease were the symmetry of the affection, the freedom from pain, the long duration of the symptoms, and the free mobility of the joints on passive movement throughout the course of the disease. Its symmetrical character first led me to look for a constitutional cause, and there was no difficulty in seeing that the patients were the subjects of hereditary syphilis. I do not mean to say that no other constitutional diseases could possibly have produced such a symmetrical condition, but I do think that other joints besides the knees would probably have been at some time and in some of the cases affected in a similar manner if such diseases as rheumatism, gonorrhœa, or gout had been the cause. I have never seen both knee-joints fill with fluid, causing scarcely any pain or discomfort, whilst other joints remain quite free from any signs of inflammation, except in cases where there was distinct evidence, either past or present, of hereditary syphilis. The patient generally complains of stiffness in one knee, which is then found full of fluid, but not tense: on careful examination the other knee is also found to contain fluid, but not to the same extent as the one for which advice is sought. So that it is fair to assume that the knee to which attention has been directed by the patient has been affected some little time before he has felt any inconvenience. In a few instances there has been an interval of some months before the second knee has given the ordinary signs of synovitis; and in one case (No. 5 in table), which was that of the patient aged twenty, there was an interval of two years. All the other joints have been at the same time carefully examined, to make

sure that such an insidious chronic synovitis has not been overlooked, but no joint affection could at any time be discovered elsewhere; nor was there any history pointing in that direction in any of the cases which are here recorded, except in No. 11 in the table. The swelling in some of the cases was accompanied by considerable thickening of the synovial membrane; and in one instance (No. 8) recorded by Mr. Nettleship, the observation is made that in some places it gave the "impression of loose bodies in the joint." But in the greater number this swollen condition was not so noticeable a feature as in the synovitis which may occur as one of the later manifestations of the acquired disease. The chief part of the swelling in the cases now under consideration seemed to be produced by an increased quantity of synovial fluid. The joints were never tense, but gave a sensation of flaccid fluctuation, as if they were only half full of fluid. The bones in the immediate neighbourhood were not enlarged, and in only a small proportion of the cases was there any articular tenderness. Nodes were occasionally found, but generally some little time after the onset of the swollen joint and at some little distance from the affected articulation. The peculiarly chronic nature of were afflicted with absolute deafness of recent origin. The latter symptom was in each case devoid of any other obvious cause, and must, I think, be attributed to hereditary syphilis. Thus, every one of the cases quoted had two or more of the symptoms which, taken together, may be fairly held to establish the presence of the disease in question. Less reliable symptoms, such as those presented by the features, have not been mentioned; but they existed in most of the children who came to the out-patient room with symmetrical synovitis of the knee. The family history is proverbially difficult to obtain in this department of the hospital, and although in a few instances it tended to confirm the opinion already formed, it may be stated generally to have been of a negative character. I do not think that this disease has any relation to epiphysitis, which is so common in syphilitic infants, for there was no apparent enlargement of the bone, as has been already stated, and the swelling was quite uniform in outline. In epiphysitis the swelling is always more or less unilateral, for although the whole joint may be enlarged by consecutive synovitis, one side will generally be found larger than the other, with increased tenderness on the side affected; whereas in the symmetrical synovitis, to

ELEVEN CASES OF SYMMETRICAL SYNOVITIS OF THE KNEE.

No.	Sex.	Age.	Joints.	Duration of symptoms.	Evidence of hereditary syphilis.	Family history.
1	M.	10	Both knees.	4 months.	Double interstitial keratitis; typical teeth; ostitis of both tibiæ.	No notes.
2	F.	8	Both knees.	6 months.	Double interstitial keratitis; ostitis of one tibia.	No history.
3	M.	11	Both knees.	6 weeks, and then ceased attending.	One typical central incisor; nodes on tibiæ; snuffles and skin eruptions in infancy.	Mother had two stillborn children before patient.
4	F.	9	Both knees.	3 months.	Interstitial keratitis of one eye of two weeks' standing, with no further notes; one typical central incisor.	No history.
5	F.	20	Both knees (two years apart).	6 months each.	Remains of double interstitial keratitis; ostitis of both tibiæ, which are very large.	No history.
6	F.	10	Both knees.	7 months.	Double interstitial keratitis; typical teeth.	Father syphilitic; no evidence in family beyond patient.
7	F.	15	Both knees, and right articular tenderness.	6 months.	Double interstitial keratitis under Mr. Nettleship; incurable deafness of one month's standing.	No history.
8	M.	14	Both knees, articular tenderness.	3 months.	Interstitial keratitis; typical teeth; deaf.	No notes.
9	M.	12	Both knees.	2 months, and probably more.	Interstitial keratitis.	Well-marked history of mother being infected, and then having miscarriages.
10	F.	8	Both knees acute and painful one week after fall on knees. One joint tapped. Recovered with good joints.	4 months.	Double interstitial keratitis.	Doubtful history.
11	M.	21	Both knees. History also of both ankles having been swollen at commencement.	12 months.	Double interstitial keratitis for nine months; still under observation.	Patient is third child; fourth, fifth, sixth, and seventh children died in infancy; eighth under observation for interstitial keratitis.

the synovitis is still further shown by the fact that in all the cases referred to in this paper the swelling has remained with scarcely any alteration for from three to six months, and in one instance for twelve months. In one case (No. 10) the symptoms followed a more acute course, but were distinctly attributed to a fall on the knees a week previously to the admission of the patient. Treatment by splints and rest in bed seemed to influence the course of the disease very slightly, for those that were treated in this way were as slow in getting well as those that had no local treatment whatever, for as soon as the splints were removed the effusion returned. The ultimate result in all the cases that came under my observation was the perfect recovery of the joints, the most important part of the treatment appearing to be the exhibition of anti-syphilitic remedies—mercury and iodide of potassium; but these drugs had not the same marked effect that they have in the acquired disease.

The facts as to hereditary syphilis are as follows. Of the eleven cases, active keratitis was present in nine, and in one other the corneæ bore traces of a former attack, so that in only one had the corneæ escaped. Five had the central incisors marked in the manner characteristic of the disease. Four had nodes on the tibiæ, and two which allusion is here made, the joint is uniformly enlarged, and the synovial membrane appears to be the only part affected.

To recapitulate in a few words the principal features of the condition which was demonstrated by these few cases, one would say that the synovitis was symmetrical, affecting only the knees, that was of a chronic and painless character, and that all the patients were the subjects of hereditary syphilis. I can offer no satisfactory explanation of the facts here recorded, but must content myself with drawing attention to a few clinical symptoms. At the same time I would like to point out that if the condition which is now under consideration be really due to hereditary syphilis, the similarity between interstitial keratitis and this symmetrical synovitis is so marked as scarcely to require any lengthened explanation. Both knees, like the eyes, are, in my experience, sooner or later affected, and often with an interval between the commencement of the symptoms in each joint. Both diseases are exceedingly chronic, and produce little or no destructive changes in the tissues involved, neither suppuration nor adhesions having occurred in any of the cases that came under my observation. They are also both liable to relapses, and not very amenable to treatment. The age of the patients is another and striking point of similarity, for

seven out of the eleven were between eight and twelve years of age. In two cases the symptoms arose at a much later date, but this also occurs in interstitial keratitis, so that even in its rarer forms it corresponds with that disease in this particular—that of the age of the patient. I am at a loss to explain why the knees should be affected in preference to other joints. It is probable that, with further observation, the knees will not be found to occupy this solitary distinction, and that other joints will be seen to be affected in a similar manner. But up to the present time I have not seen this chronic symmetrical synovitis, which appears to be associated with hereditary syphilis, in any other joints besides the knees. That it should be symmetrical is only what one expects from our knowledge of the similar manifestations of the disease at this period of life.

THE NEUROTIC TREATMENT OF CATARRH.[1]

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ALTHOUGH by some writers the meaning of the word "catarrh" is extended to include various affections which are believed to have similar origin, the term is in itself simply a word-picture of that familiar complaint which the Greeks called "coryza," and which we know as a "cold in the head." Too familiar to most of us is this annoying condition. A severe cold hinders effective work for several days, makes the sufferer miserable while it lasts, depresses his vital energy, and sours his temper; it leaves him with an increased predisposition to take cold again. Nor is this all; it is too often the starting-point of chronic or even of acute disease. A formidable list might be made out of the sequelæ of catarrh; it would include chronic pharyngitis and enlarged tonsils, deafness from Eustachian obstruction and altered conditions of the tympanic membrane, muco-purulent collections in the middle ear, and in infants posterior basic meningitis leading to death or idiocy, chronic laryngitis with hoarseness, chronic bronchitis, and in neurotic subjects asthma, and last, but not least, through the permitted invasion of the tubercle bacillus, phthisis.

The present treatment of catarrh cannot be considered satisfactory. It rarely succeeds in cutting short the malady or in alleviating to any great extent its discomforts. It is essentially a diaphoretic treatment, insisting on confinement in warmed rooms, swallowing of hot liquids, and use of hot-water or vapour baths, or of the Turkish bath. The result aimed at by these various measures is diaphoresis; in plain English, the object is to arrest the flow from the nose by causing a flow from the skin. The reasonableness of this is about on a par with the action of one who should seek to have all the street lamps lighted in order to check the flow of gas into his house from a leak in his pipes; the plan might to some extent be successful, but we should not think highly of its wisdom, and should ask whether the tap had been turned at the meter. Can we in any way directly arrest the flow in catarrh? The answer to this depends upon a clear understanding as to its nature. If we ask the question, "What is catarrh essentially?" we must reply, "Catarrh is a neurosis, in which the vaso-motor system is largely concerned."

Nothing can be regarded as more certain than that the onset of catarrh is due, in a very large number of cases, to an impression of cold on the surface of the body, owing to draughts, insufficient clothing, or the chilling evaporation from damp clothes. An impression is made upon the cutaneous nerves, and is by them transmitted to the nerve centres. The effect is not immediately manifested, but after a few hours a general chilliness of the surface is experienced, clearly due to a general vaso-motor spasm of the cutaneous vessels, and accompanied by flying pains and aches in the limbs, which are probably really central and not peripheral, and due to disturbed vascular conditions of the nerve-centres themselves: at all events, a full dose of bromide very rapidly puts an end to them. At first the vessels of the nose, throat, and air-passages share in the spasm, and for a while the throat feels dry from the diminished secretion. But before long these vessels pass from a condition of spasm into a condition of paralytic dilatation, and then commences the flux of liquid, copious and clear at first, but gradually growing more opaque as cellular elements become mixed with it, and finally diminishing. In catarrh primarily nasal the affected arteries are the terminal branches of the internal maxillary, the nasal or spheno-palatine, which supply the mucous membrane of the nose. Other offshoots of this artery may also be affected, and it is probable that the acute earache which is so common in young children in the early stage of a catarrh, long before any effects of Eustachian obstruction are manifested, is due to a tense hyperæmia of the drum membrane resulting from a paralytic dilatation of the tympanic branch of the internal maxillary. Nor is the congestion limited to this artery and its subdivisions; it may spread to other branches of the external carotid, and the facial may be felt forcibly beating. One consequence of the dilatation of the nasal branches of the internal maxillary is congestion of the highly vascular mucous membrane covering the inferior turbinated bones, the result of which is the production of a condition of extreme hyperæsthesia of this part, expressing itself partly by local sensations of tingling, and partly by the reflex neurosis known as "sneezing." The hyperæsthesia is often so great that a simple draught of cool air will at once excite this reflex process.

There is reason also to believe that an exaggerated sensibility of the mucous membrane covering the turbinated bones may not only be a consequence of catarrh, but may also rank among its causes. It is well known that in some persons the inhalation of air which contains dust of powdered ipecacuanha or pollen of certain grasses excites sneezing, asthmatic symptoms, and catarrh. This asthma is certainly a neurosis excited by the local irritation, and it is probable that the catarrh is of the same nature. Again, in cases of infectious catarrh, under which head may be included influenza, measles, and whooping-cough, it is not unlikely that the process is similar. Many ordinary catarrhs are distinctly contagious, as is known in every household; and the contagium, whatever it be, probably causes at first local irritation and reflexly catarrh. Even in health a catarrhal flow will often be induced in susceptible persons by going out of a warm room into a very cold atmosphere on a wintry day.

The facts just quoted are sufficient to suggest from analogy the possibility of some cases of ordinary catarrh being due to "germs" of some kind. Of this nothing is certainly known. The chief arguments in its favour are the contagiousness of some catarrhs, the benefit which sometimes is obtained from the local use of antiseptic sprays or lotions containing quinine, salicylic acid, iodine, and similar substances, and from inhalations of camphor, and, lastly, certain observations on the results of experimentally inhaling the air escaping from sewer-ventilators, which were thought to point in this direction. These arguments have no doubt a certain value, but to ascribe all catarrh to germs, as has recently been suggested, is surely to fly in the face of universal experience as to the connexion between an external chill and the catarrh which shortly follows it.

If it be true that catarrh is a reflex neurosis, it is clear that a treatment which is essentially diaphoretic must miss the mark. It is to neurotic remedies that we must look for alleviation and cure. The indications for treatment are three: we need to soothe the reflex disturbance of the central nervous system, to quiet the local congestion and hyperæsthesia of the nasal mucous membrane, and to arrest the flux, if it have already commenced.

The first indication may be to some extent met by the administration of opium. It is to the sedative influence of this drug on the nervous system, rather than to any diaphoretic action which may result, that Dover's powder owes its reputation in the treatment of catarrh. Laudanum sometimes is distinctly successful in arresting a cold. But the other effects of opium make it not altogether a desirable remedy. Chloral hydrate is free from these objectionable effects; but both opium and chloral are dangerous drugs, and they cannot be pushed with safety. Bromide of potassium is, however, free from these objections; it is by far the safest nervine sedative which we possess. Professor Wood says: "No case of acute poisoning in man with the bromide of potassium has been reported, and I have never seen a single dose of it produce any obvious effect." A case is recorded in which an epileptic idiot took at a single dose no less than two ounces and a half of this salt. No drowsiness was produced, and

[1] Read before the Harveian Society, Feb. 4th, 1886.

the only apparent effect was that the fits, which until then had been very frequent, ceased immediately, and had not returned even ten weeks later. The distinctive physiological action of bromide is to depress the reflex activity of the central nervous system—precisely the action required in the treatment of catarrh; and its safety makes it possible to give the drug in such doses as shall produce a distinct physiological effect.

The second indication is to reduce the local congestion and hyperæsthesia of the nasal mucous membrane. Relief may be given in this direction by simply closing the nostrils, or impeding the access of cold air by inserting a plug of cotton-wool. A correspondent of one of the medical journals is enthusiastic over the magical effects of a camomile flower inserted into the nostril! Distinguished authorities in neurology have not disdained to turn their attention to this point. Dr. Ross tells of the relief he has himself experienced by painting the nasal mucous membrane with simple vaseline, and Dr. Ferrier has suggested the sniffing of a powder by which the locally sedative effects of morphine and bismuth are produced. The former method is simply protective, like the cotton-wool. Ferrier's powder is certainly of some curative value, but its application is extremely unpleasant in the results to clothing, when the moistened powder falls from the nose, a chalky cream. The indication can now be much more satisfactorily and scientifically met by the use of cocaine. This drug both causes local anæsthesia and diminishes local congestion; hence, it affords exactly what we require. I have found that the occasional painting of the mucous membrane, especially over the inferior turbinated bone, with a 4 per cent. solution of hydrochlorate of cocaine by means of a camel's hair brush gives instant relief, and on one occasion, at all events, this measure sufficed completely to arrest a cold without the aid of any other remedy whatever.

The third indication is to arrest the flux if it have already commenced. Here again we are fortunate enough to possess a remedy which exactly fulfils the indication. The first obvious physiological action of belladonna is to produce dryness of the throat, due to suppression of the secretions of the salivary and mucous glands. This is exactly what we require in the treatment of catarrh, and several observers have pointed out the advantage of using this drug, but there does not seem to be a general recognition of the fact. And belladonna is a comparatively safe drug; not that it can be used with the freedom of bromide, but that it gives distinct indications long before the development of poisonous symptoms. The dryness of the throat is almost invariably the first effect, but dimness of near vision, dilatation of pupil, and flushing of the face will be observed before any cerebral excitement will occur; and the poisonous properties of belladonna are much less dangerous than are those of opium, which depresses the respiratory centre.

My plan of treatment for the arrest of catarrh is as follows. I keep a strong solution of bromide (1 in 3) and a bottle of tincture of belladonna (B. P.). When I am conscious of having taken cold, I take two to three drachms of the bromide solution in a small glass of water—that is to say, forty to sixty grains of bromide. I repeat this dose in six hours, and, if necessary, take a third dose at a similar interval. Meanwhile, as soon as a flux commences, I take twenty drops (equivalent to fifteen minims) of the tincture of belladonna in a little water every hour or two until the throat feels somewhat dry. The painting of the nasal mucous membrane with cocaine solution gives great relief, and powerfully contributes to the cure if the catarrh be severe. Since I hit upon this plan I have never failed rapidly to arrest my own catarrhs, nor have I failed in any instance in which I have myself been able to superintend the administration of the remedies.

The following case may serve to illustrate the good which may be effected even when it is not desirable to push the remedies so decidedly. I was telegraphed for by the lady superintendent of the Highgate convalescent branch of the Hospital for Sick Children, of which I have the medical charge, to see a child who was dangerously ill. I found it to be a very rickety girl, aged four, with a highly deformed chest. A stream of catarrhal secretion was flowing from both nostrils, dyspnœa was marked, and the temperature was 101°. On examination of the chest, I found good resonance everywhere, but an abundance of catarrhal râles. I ordered that the chest should be rubbed with turpentine liniment, and that the child should take eight grains of bromide and ten minims of tincture of belladonna every four hours. Forty-six hours later I saw this little girl again, and the note I made was this: "No nasal catarrh; no râles in chest; temperature normal; breathing easy; child seems quite well." Since my previous visit she had been sick once, which had no doubt aided in clearing the bronchial tubes, but the complete arrest of secretion was very remarkable. The great danger of acute bronchitis in rickety children with deformed chests being well known, it is not improbable that in this particular instance a life was really saved by the adoption of a neurotic treatment of catarrh.

NOTES ON DIGESTIVE FERMENTS.

By WILLIAM MURRELL, M.D., F.R.C.P.,

LECTURER ON PHARMACOLOGY AND THERAPEUTICS AT THE WESTMINSTER HOSPITAL, EXAMINER IN THE UNIVERSITY OF EDINBURGH AND TO THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

I.—PEPSIN AS A DIGESTIVE AGENT.

THE test for pepsin adopted in the British Pharmacopœia of 1867 was that two grains in an ounce of distilled water, acidulated with five minims of hydrochloric acid, should dissolve 100 grains of hard-boiled white of egg in thin shavings when digested together for about four hours at a temperature of 98° F. The test instituted by the British Pharmacopœia of 1885 is very different. We are told that two grains in an ounce of distilled water, to which five minims of hydrochloric acid have been added, form a mixture in which at least 100 grains of hard-boiled white of egg passed through wire gauze of thirty-six meshes per linear inch, and made of No. 32 brass or copper wire, will dissolve on their being well mixed, digested, and well stirred together for thirty minutes at a temperature of 130° F. (54·4° C.). It will be seen that in both cases the quantity of pepsin taken is the same, and that the amount of white of egg to be dissolved remains unaltered. There are, however, at least three points in which the tests do not accord. The time allowed by the 1867 test is "about four hours," whilst in 1885 it is limited to thirty minutes. The temperature adopted in 1867 was 98° F., whilst now it has gone up to 130° F. In 1867 we cut our hard-boiled white of egg into thin shavings, but in 1885 we adopt a more elaborate method, and pass it through meshes of a certain size and shape. The necessity for well stirring together the mass is now recognised, whilst formerly it was left to the judgment or taste of the investigator. The difference between the two Pharmacopœias in regard to the tests for pepsin may be summed up shortly. In the new Pharmacopœia the time is decreased to one-eighth, whilst the temperature is raised 32°. This elevation of temperature represents an increase of 16 per cent. in digestive power, so that we lose 87·5 per cent. as regards time, and gain 16 per cent. on the temperature, the net result being that our standard is raised 71·5 per cent., for which too much gratitude cannot be shown.

The standard adopted by most authorities both on the Continent and in America is the quantity of white of egg which one grain will dissolve at the temperature of the body in four hours. In the early part of this year, being on a hospital drug committee, I had occasion to examine in this manner a variety of specimens of pepsin, and as the selection included nearly all the recognised brands the results are not without interest. It may be as well to state in the first place that the specimens were not selected in any way. They were not picked samples obtained from the manufacturers for examination, but were *bonâ fide* specimens bought at an ordinary chemist's shop, care being taken to see that the original wrapper was unbroken, and that they presented no indication of having undergone deterioration by age or exposure to variations in temperature.

The estimation of the comparative value of different preparations of pepsin, although simple in theory, is by no means easy in practice, especially if accuracy is desired. The essential action of pepsin is proteolytic—the conversion of proteids into peptones,—and this is usually taken as the test of the value of the specimen. The first point to decide is whether to use fibrin or egg albumen. Following the example of Dowdeswell and other authorities, and being not unmindful of the requirements of the Pharmacopœia,

I employed white of egg. The eggs must be quite fresh, and should be boiled in a uniform manner. The best way is to boil the water first, then put the eggs in altogether and let them boil for ten minutes. If a shorter time be allowed, it will be seen that the white will not separate from the yelk nicely and cleanly. It will be found that on an average fifteen eggs yield 7000 grains of coagulated albumen, or perhaps a little less. Much depends on the state of subdivision of the white of egg. An attempt to obtain uniformity was made by pounding up together the whole mass after the removal of the membrane and yelk, and then rubbing it through a No. 30 sieve. This seemed to answer well, for when suspended in water and examined the particles were found to be uniform both in shape and size. The next question was the strength of the acid, and here again, following Dowdeswell, it was determined to use distilled water acidulated with 1 per cent. hydrochloric acid of sp. gr. 1·150. The specific gravity of the acid was ascertained in the ordinary way by a Westphal's balance, the observation being made at 15° C. The necessity for having beakers of the same size and shape was fully recognised, and the mixture was constantly stirred. The observations were made at a temperature of 38° C. (100·4° F.), that being approximately the temperature of the body. The beakers were maintained at a uniform temperature by placing them in a water-bath with a little jet of gas beneath. It was not thought necessary to use a gas regulator, as the themometer was carefully and constantly watched, and never varied more than a degree, or at the most a degree and a half. The test proposed was the quantity of coagulated white of egg digested by one grain of pepsin in four hours in eight ounces of 1 per cent. hydrochloric acid at a temperature of 38° C. It was thought that the activity of each preparation could be ascertained by filtering the liquid left at the expiration of the time selected, and then, after drying, weighing the residue left on the filter. The whole experiment was a failure, for the simple reason that what was left would not filter: the fluid positively declined to be filtered. It was put on the filtering-paper, and there it remained, hardly a drop passing through, even after standing twenty-four hours. It was not hurried in any way; it was allowed to take its own time about it, but the result was always the same. Different kinds of filtering-paper were tried, and an attempt was made to humour it by folding the papers in various fantastic devices, but it was all to no purpose, and it refused to budge a drop. Finally glass-wool was experimented with, but it would not even go through that, and the whole thing had to be abandoned in disgust.

This plan having failed, another, or rather a modification of the former, was adopted. The white of egg, instead of being passed through a sieve, was cut up by hand into long narrow, thin slips or slices. These pieces were not absolutely uniform either in shape or size, but as fifteen eggs were operated on at a time, and the whole mass was mixed up together, the error arising from this source could not have been very great. The weight of albumen taken for each observation was 1000 grains, as usual. The fluid was eight ounces of 1 per cent. hydrochloric acid of sp. gr. 1·150. The temperature was 38° C.; and the quantity of pepsin employed was one grain of each of the solid preparations and ten grains of those which were liquid. The observations in each case lasted for four hours. At the end of that time the liquid was filtered through muslin and carefully washed for thirty minutes with a small jet of distilled water. The muslin was then spread out on porous paper to absorb the excess of moisture, and allowed to remain exposed to the air at a temperature of 60° F. for twenty-four hours. The albumen was scraped off the muslin and carefully weighed. The figure so obtained was subtracted from the weight originally taken, and in this way the quantity of albumen dissolved by one grain of each preparation was ascertained.

Thirteen solid specimens of pepsin were examined, some of English, others of French, German, or American manufacture. They were all active, but in many the proteolytic power was very small. Only four would have come up to the standard of the new British Pharmacopœia. The name is evidently no guarantee of purity, for a specimen made by a well-known firm was represented by the figure 871, whilst another, sold under an equally well known name, had to be satisfied with an award of 162, a state of affairs which is hardly satisfactory. The same pepsin is often sold under different names, according to the amount of impurity added. I have before me a table showing the exact quantity dissolved by one grain of all the best-known pepsins, but I do not think it would serve any useful purpose to publish it. Better by far that every medical man should make his own observations and form his own opinion. It may be doubted if the Pharmacopœial description of pepsin as "a light yellowish-brown powder" is a happy one, for the most active specimen was a preparation in scales. The pepsin usually supplied to hospitals is, I am sorry to say, of poor quality. In addition to the thirteen solid pepsins, I examined six liquid preparations, wines, essences, &c., and although ten grains were taken instead of one, the results were unsatisfactory, and the only conclusion I could arrive at was that they were not very reliable, although none of them were absolutely inactive. Having used the carica papaya largely in the treatment of various forms of dyspepsia, I determined to try it against the best pepsins, but found that under the conditions already indicated it was decidedly inferior in activity. I examined in all six specimens of papaw obtained from trustworthy sources, but only two would have come up to the Pharmacopœia test. The best papain had about half the activity of the best pepsin. I do not say that in alkaline or neutral media the papains are not more active, but simply that, tested against the best pepsins and by the same methods, they do not give equally good results. Even in a neutral solution the best papain was not equal to the best pepsin in an acid solution. A papaw preparation which in a certain time dissolved 420 grains in an acid solution dissolved 476 grains in a ½ per cent. carbonate of soda solution and 535 grains in a neutral solution.

No one can doubt that pepsin is a valuable therapeutic agent, and that it is of the greatest possible use in the treatment of many forms of atonic dyspepsia, flatulence, and gastralgia; but to obtain anything like good results it must be given in doses very much larger than those recommended in the British Pharmacopœia. To give only from two to five grains at a time is a palpable absurdity. The reason that such good results are obtained with pepsin in the treatment of infantile diarrhœa is that it is given in proportionately larger doses. To obtain good results in the treatment of dyspepsia two things are essential—first to test your pepsin, and then to give plenty of it.

Weymouth-street, W.

PERFORATING ULCER OF THE INTESTINE.

BY JAMES OLIVER, M.B. ED., M.R.C.P. LOND.,
ASSISTANT-PHYSICIAN TO THE HOSPITAL FOR WOMEN.

PERFORATING ulcer of the intestine is essentially an acute disease, depending as it does upon a localised softening and disintegration of tissue resulting from a plugging of those vessels which run in and nourish the coats of this viscus. Although from the length of time the symptoms may continue, and because of a proneness of the ulcer for some reason or other to recur, the disease may be worthy of the appellation of "chronic," yet, according to the extent and completeness of the occlusion, so the necrotic change begins to show itself in one or all of the coverings, except the serous, almost immediately they become deprived of their sole source of nutrition. The branches of the mesenteric artery pass round the sides of the intestine under the serous coat, and frequently anastomose with each other towards the free border of the gut. They subdivide and ramify in the muscular coat, supplying it with blood, and finally end in a fine capillary network in the mucous membrane and its underlying areolar tissue. If the blood-supply to any tissue of the body be suddenly withdrawn, as happens when a vessel becomes occluded either by an embolus or a thrombus, and collateral circulation be not readily established, death of the part is inevitable. In the brain and spinal cord localised patches of softening may frequently be detected, the result of plugging of the vessels. By the introduction of emboli into the mesenteric arteries we can produce, artificially, perforations more or less complete, corresponding exactly with those ulcers now under consideration. It is therefore evident that the withdrawal of blood from a part can at least produce destruction of tissue apart from any suppurative or inflammatory change. Here the whole destructive process is truly analogous with that of dry gangrene occasionally seen in

the extremities of the aged, where the vessels, because of degenerative changes in their coats, become impervious. Collateral circulation, however, is so readily established in the mesenteric vessels, that emboli, unless very complete, can but rarely exert any influence in the production of intestinal ulcer, except as affording a focus for coagulation of blood and the subsequent development of a thrombus. I am inclined to think that deterioration of blood and degenerative changes occurring in the protoplasm of the capillary wall favour the formation of thrombi, and are therefore potent agents in the production of intestinal ulcer. In some cases it is quite possible the cause may be thrombosis, the result of a local phlebitis. Like gastric ulcer, it so far appears to be more common in females than males. Its exciting cause is wholly unknown.

Perforating ulcer is by no means rare. It may occupy any part of the intestinal tract. Most usually it will be found, however, mid-way between the attached and free border of the gut. As a rule, two or three ulcers are to be detected situated close together or at some little distance from each other. They are generally round, but they may be irregular and even somewhat serpiginous in shape. If the perforation be complete, the serous coat usually gives way by rupturing, whilst all the other structures will be found to have necrosed to an equal extent throughout; the muscular coat, however, retracts, and a partial prolapse, so to speak, of the apparently redundant mucous membrane results. One or all of the coats may gradually disappear, the destructive process progressing from within outwards. Recovery may take place at any stage, the loss of tissue being replaced by an exudation and proliferation of cells, which eventually develop new fibrous tissue with a marked proneness to retract, producing a cicatrix of variable shape and size. The affected part of intestine may by a local peritonitis become glued to another part of the bowel or to some other abdominal or pelvic viscus, and the perforation becoming complete, a fistulous communication may in the course of time be established. If the posterior part of the ascending or the descending colon becomes thus completely ulcerated faecal extravasation will take place into the underlying areolar tissue outside the peritoneal cavity, and with due care the case may be brought to a favourable termination. It is but seldom that a vessel of any importance gives way producing serious hæmorrhage.

The symptoms of ulcer of the intestine are usually very insidious, and the first intimation of the presence of such a grave condition may be the sudden collapse of the patient, the result of rupture of the bowel and escape of the contents into the peritoneal cavity. Pain as a rule is more or less constant, and is a most troublesome symptom. There is general but no localised tenderness of the abdomen on pressure. Usually there is constipation; occasionally diarrhœa. The temperature may reach 103° F.; generally it is but slightly above normal. The pulse is markedly increased in frequency, averaging from 100 to 120. The tongue is usually red and irritable. Sometimes there is retention of urine without apparent cause, which is most probably reflex. There is no pain on voiding urine, unless the bladder has become attached to the gut by inflammatory adhesions.

The treatment is complete rest, with bland, easily digested food. Opiates are very essential; they must, however, be judiciously employed.

Montague-street, Russell-square.

WEST NORFOLK AND LYNN HOSPITAL.—The annual meeting of the governors of this institution was held on the 16th inst., when it was reported that the total number of patients who had received treatment in 1885 was 2437, against 2378 in 1884. Dr. Lowe, who had for some years acted as consulting surgeon to the institution, having left the town, it was unanimously resolved that he be elected a vice-president of the hospital. The financial state of the charity is not satisfactory, the expenditure having during the past year somewhat exceeded the ordinary income.

ASTLEY COOPER PRIZE.—The next triennial prize of £300 will be awarded to the author of the best essay or treatise on the Origin, Anatomy, Results, and Treatment of Tubercular Diseases of Bones and Joints. Essays are to be sent to Guy's Hospital on or before Jan. 1st, 1889, addressed to the physicians and surgeons of that institution.

ON PHIMOSIS IN INFANCY.

BY GEOFFREY HETT M.D.

MY excuse for submitting the following observations on this subject to the consideration of the profession is that my experience leads me to think that phimosis is a morbid condition which is not infrequently overlooked. Its persistence is the cause of much unnecessary suffering among children, and a neurotic habit is often induced which, in some instances, is never shaken off, but continues to exercise a prejudicial effect upon the usefulness and happiness of a considerable number of men during the whole of their lives. It would be advantageous if the following rule were adopted by all those taking charge of midwifery cases: to examine every male child within a few days of birth, and, if the prepuce cannot be retracted by the exertion of a moderate amount of force, to perform circumcision on or about the eighth day of life. The advocacy of such a rule will appear superfluous to many members of the profession, particularly to those who have had special opportunities of observing the diseases of children. That it is, however, not accepted, or, if theoretically accepted, not acted upon by numerous practitioners of midwifery, is sufficiently proved by the frequency with which it is necessary to perform the operation in later life. Complete retraction of the prepuce is necessary in order to prevent the retention under it of the secretion of the numerous sebaceous glands in the mucous membrane of the cervix and glans penis (glandulæ Tysonii). The accumulation of this sebaceous matter, acting as a peripheral irritant through the internal pudic nerves, may, and often does, cause central mischief more or less grave according to the constitution of the child and the amount of local irritation. If the preputial opening be so small as to interfere with the easy passage of urine, the condition will be aggravated by some of this fluid being forced under the prepuce and increasing the congestion of the mucous membrane. The injury resulting from this cause may be productive of nothing more than slight peevishness of temper; but, on the other hand, may give rise to convulsive attacks terminating fatally, and, of course, to any effect intermediate between these extremes. I feel sure that many an unfortunate little boy is credited with bad temper and punished for naughtiness whose irritability is due to neglected phimosis, and consequently entirely beyond his own control. There is also much reason for thinking that the habit of masturbation is frequently led up to by a morbidly excitable condition of the sexual organs due to the same cause. Should no symptoms arise sufficiently severe to call attention to phimosis, and the child grow up to manhood with the defect unremedied, the liability to venereal disease must be largely enhanced by the impossibility of effectual ablution of the penis. The operation of circumcision is, in infancy, almost entirely free from risk if ordinary care be exercised. The only objection to it of which I am aware is the æsthetic one, and this cannot have much force in a clothes-wearing community, especially when the advantages derived from it are fully considered. Circumcision may be performed by seizing the extremity of the prepuce between the finger and thumb of the left hand, drawing it well forwards so that the outline of the glands can be clearly seen through the integument of the penis, and slicing it off diagonally downwards and forwards just in front of the glands with a sharp scalpel. The mucous membrane, which will be found still embracing the glands, should be split along the dorsum *quite up to the cervix*, turned back, and retained in position by a narrow strip of dry lint wrapped firmly three or four times round the penis. No sutures are necessary. The lint becomes saturated with blood, and, when this is dry, remains in position for from two to four days. On its removal the wound will generally be found completely healed, but, if any portion of it be granulating, it only requires the application of a little carbolised oil four or five times a day. I have never seen a case in which the dry lint failed to prevent any excessive hæmorrhage. The eighth day of life is a suitable time for the operation, as the organism of the child has by then become accommodated to its new environment.

Inverness-terrace.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

CHARING-CROSS HOSPITAL.

SELF-INFLICTED BULLET-WOUND, LAYING BARE AND TRAVERSING THE BRAIN; BULLET REMOVED FROM THE TEMPORAL FOSSA ON THE OPPOSITE SIDE; RECOVERY.

(Under the care of Mr. J. ASTLEY BLOXAM.)

THE unusual result of such serious injury as is recorded in the account of the following case renders it specially interesting. It is true that the injury was in the anterior part of the brain, where perhaps damage is less serious than in any other part, but the injury was so extensive and the danger of consecutive inflammation so great, from the injury by the bullet or from the presence of foreign bodies carried in by it, that the case will prove important in the literature of injuries to the brain. It was evidently not a case in which anything could be gained by the operation of trephining, and the expectant treatment adopted at first was fully justified by the result. Cases are on record where the bullet in similar injuries has simply struck the side of the skull opposite to the point of entry, and then rebounded, merely leaving an indentation. Under such circumstances operation would be useless. Here the bullet appears to have passed completely through from side to side, partly concealing itself in the temporal muscle.

Tom S——, aged eighteen, was brought to the hospital early on Sunday morning, September 24th, with a gunshot wound of the head. The face and neck were both much swollen, and patient complained of pain in the left temporal fossa and at the back of the cranium. There was a wound three-quarters of an inch above and behind the external angular process of the frontal bone on the right side, involving both tables of the skull and exposing the brain, some of which lay in the wound; the edges of the wound were blackened and swollen. No loss of motion or sensation. Patient slept a good deal, but could be easily roused. Pulse 62. The wound was cleaned and dressed antiseptically.

Sept. 25th.—Patient is semi-conscious. Evening temperature 100°; œdema of *left* lower eyelid. Respiration normal.

27th.—Patient was seen by Mr. Boyd, who felt beneath the skin in the *left* temporal fossa what appeared to him to be the bullet or a spicule of bone. Temperature 100·2°.

28th.—There is some subconjunctival congestion of the right eye.

30th.—An abscess was noticed pointing at the attachment of the temporal muscle on the left side, and poultices with belladonna were ordered.

Oct. 3rd.—The wound is granulating and looks healthy; there is very little discharge. He complains of some tenderness over the temporal region of the opposite side. No loss of smell, speech, or memory. Tongue thickly coated. Patient says he feels very well, but is still drowsy.

6th.—Pulse 68, intermittent. Patient complains of pain and tenderness in the neck and between the shoulders. The wound looks healthy; the temporal fossa on the left side is fuller, and the bullet can be felt more distinctly, with fluctuation in its neighbourhood. He passes his urine and motions unconsciously at times.

8th.—The patient says the tenderness is very great over the neck; he lies mostly on the right side. Pulse 64, feeble. He looks ill.

11th.—There is some wandering at night, and he objects to being moved. He passes his urine and motions unconsciously. Temperature last night 100·6°. The bullet, weighing about 2½ drachms, was removed to-day by Mr. Bloxam from its lodgment in the temporal muscle of the left side, a quantity of pus escaping at the same time. He was afterwards delirious.

13th.—The patient looks better to-day, and has slept pretty well.

14th.—All the motions have been passed unconsciously since the operation. He takes food badly; is only semi-conscious. Slight discharge from both wounds, most from the left. Antiseptic dressings as hitherto. Right wound looks healthy; the left is filled by a blood-clot. Pupils respond properly to light. No strabismus. He is difficult to rouse, but when roused he converses rationally.

19th.—The patient passes his motions unconsciously, but knows when he passes his urine. Ophthalmoscopic examination of eyes (atropinised) showed the discs to be clear; no optic neuritis.

21st.—Pain and tenderness along the course of the lymphatics on the left side of the neck. Breath smells very offensive. He is cheerful, but wanders a good deal. Bowels not having been open for three days, an enema was ordered to be given.

The patient gradually improved, becoming every day more conscious, and the wounds healed over without further complication. He was discharged cured on Nov. 11th.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN.

A CASE OF OSTEO-MALACIA.

(Under the care of Mr. E. OVERMAN DAY.)

WE are indebted for the following notes to Mr. A. Dixon Jollye.

E. S——, aged eighteen. Family history good, consisting of two sisters and one brother, all delicate-looking, but apparently healthy. The patient was born at full time, but had always been very delicate. She walked at the usual time, dentition being normally performed. Had measles and whooping-cough when twelve years old. Menstruation commenced at fourteen; always regular. The present attack dates from the age of fourteen. She never appeared so strong after the measles and whooping-cough. The first symptom (which was noticed by her mother) was her waddling gait, which was attributed to laziness. Complained of no pain, but said her ankles felt weak. Bandaging was resorted to by her mother, and soon after she had some strong boots made. The ankle bones were then supposed to be enlarged. In a short time (exact time not known) she complained of pain and tenderness in the wrists when playing the piano. The wrists were then likewise supposed to be enlarged. Three months from this date the right knee gave way whilst walking, and she became knock-kneed. The left rapidly followed the same course. She now for the first time consulted a medical man, who ordered her iron supports for the legs, and salt-water baths, from which she derived some temporary benefit. In spite of all treatment, however, she rapidly became worse, and was quite unable to walk. In November, 1883, whilst endeavouring to go across the room, she fell upon her knees.

On examination no signs of external injury were seen. There was marked genu valgum of both legs. The internal condyles were apparently considerably longer and projecting laterally; patella displaced inwards. Complete rest in bed and the application of long Liston splints (without perineal band) soon brought the limbs into a straight position, in which they remained for a considerable time after removal. The patient was very pale and delicate-looking, but appeared to be in her usual state of health.

Lateral curvature now commenced in the cervical region, with a compensatory one in the dorsi-lumbar region. This was supposed to be produced by the continual twisting over to the one side (the bed being situated by the side of the wall, she generally turned away from it.) Her father one day lifted her up by the armpits, when she suddenly experienced severe pain in the left shoulder. When seen soon after the accident there was found a green stick fracture of the corresponding clavicle. Last February (1885) the right femur commenced to arch anteriorly at its centre and outwardly in the lower third.

April, 1885.—The patient is very delicate-looking, thin, and anæmic; has a slight cough, with a few moist râles over both lungs. Heart normal; other viscera apparently healthy. Urine normal; bowels very irregular; frequent attacks of diarrhœa; tongue irritable; teeth good, not notched; no signs of struma. Spinal curvature very marked; concavity towards left in cervical region, and the reverse in the dorso-lumbar region. Right clavicle normal. Left: a large

irregular prominence at junction of inner and middle thirds. Sternum normal; ribs markedly beaded at costal cartilages. Abdomen rather retracted, but nothing striking. Humeri apparently normal. Radial and ulnar epiphyses enlarged and tender. Shafts of above bones normal. Right femur curved forwards and outwards at the lower third; left one normal. Marked genu valgum in both legs, particularly the left. Legs cannot be straightened. Slight enlargement of epiphyses of tibiæ and fibulæ. Right foot extended upon the leg and toes flexed, giving the foot a claw-like appearance.

All these distortions gradually increased, and eventually the whole sternum, which previously appeared unaffected, suddenly collapsed from atmospheric pressure. This caused a constant hacking cough and dyspnœa. The treatment all along had been light nourishing foods of all kinds, with quinine and iron and vegetable tonics, but no check upon the progress of the disease was effected. Bromide of potassium and belladonna slightly relieved the cough.

The post-mortem appearances externally were as follows. (The parents were unwilling to have the body opened). Emaciation extreme. Body, four feet and a half in length. Bones of head normal; teeth sound; gums healthy. Humeri, radii, ulnæ (with the exception of the epiphyses of the two latter), together with bones of hand, were perfect. Left clavicle bent at an acute angle; a grooved needle was passed through the bone with the same ease and absence of resistance as through the skin. Such was the case with all the affected bones. Chest: Sternum perfectly collapsed in its extreme length. Ribs project laterally into more or less sharp points. The ribs and pelvic bones are in close apposition. Sacrum bulges posteriorly. Tibiæ dislocated backwards. Left femur curved slightly backwards; measures fourteen inches. Right measures eleven inches. Patellæ displaced inwards; freely movable.

This case was seen by Mr. Bryant, Dr. Pye-Smith, and Mr. Keetley. Mr. Day stated that for some time he thought it might have been a case of late rickets.

WORCESTER GENERAL INFIRMARY.

POISONING BY CHLOROFORM; RECOVERY AFTER SEVENTEEN HOURS' UNCONSCIOUSNESS.

FOR the following notes we are indebted to Mr. Allman Powell, house-surgeon:—

On the afternoon of Feb. 14th Sarah H——, aged forty-four years, was carried to the infirmary, having swallowed, from suicidal motives, the contents of a liniment bottle belonging to a lodger in her house. The bottle, an ordinary eight-ounce one, and the prescription were also brought. The prescription was—Lin. aconiti, ʒii.; lin. belladonnæ, ʒiv.; lin. chloroformi ad ʒii. But it was subsequently learned that the former drugs were omitted in the dispensing, and that what the bottle really contained was about four ounces of lin. chloroformi (B. P.).

Her condition on admission was as follows:—Surface of body cold; lips congested; pupils fixed and dilated; breathing stertorous; conjunctival reflex absent; pulse feeble, but regular; quite insensible.

The stomach was at once emptied and washed out, the contents smelling strongly of chloroform and camphor. She continued in a state of profound chloroform narcosis until next morning. From time to time the breathing was stimulated by an electric current from the nape to the diaphragm. During the night some rigidity of the arms was noticed, and the temperature rose very rapidly, until at 3 A.M, it attained a maximum of 106·8°. After cold sponging it fell at the rate of a degree an hour. At 4 A.M. some movements of the limbs were noticed; and at 8 A.M., after a severe attack of vomiting, she recovered consciousness, which had been absent seventeen hours. A slight attack of gastritis detained her in hospital two days longer, after which she was discharged quite well.

ROYAL INFIRMARY, EDINBURGH.

APHASIA FROM INJURY; SUBSEQUENT HEMIPLEGIA; TREPHINING; DEATH; NECROPSY.

(Under the care of Professor T. R. FRASER.)

FOR the following account we are indebted to Mr. Hugh R. Bramwell, resident physician.

Peter G——, aged forty-four, publican, was admitted on Sept. 28th, 1885, complaining of slight difficulty in speaking and giddiness when walking. Eight weeks before admission he fell through a trap-door into a cellar, and received a severe blow on the left side of the forehead. He lay stunned for ten minutes, and was then carried home. The left frontal region was much bruised, and there was an incised wound over the left eyebrow. He did not speak, although he was conscious, till the following day, when he was able to give a clear account of the accident, but his speech was indistinct. On the second day after the fall he was able to walk out, but returned home unable to speak a word, and he vomited his dinner. The following day he could speak, and complained of headache and giddiness. During the next seven weeks he suffered frequently from pain in the left side of the forehead, and had many attacks of sudden faintness and giddiness, frequently vomited after meals, and his speech was often indistinct. During this time his memory for words became greatly impaired. He had been strong and healthy up to the time of the accident. There was no history of syphilis. Occasional alcoholic excesses were acknowledged. An acquaintance states that he was very peculiar at times.

State on admission.—The patient is a stout, well-developed man of average intelligence. Walks quite well and shows no signs of any impairment of muscular power. He complains of slight pain in the left frontal region, and pressure at the postero-lateral part of this region elicits distinct tenderness. There is an indistinct linear cicatrix just above and behind the left eyebrow. Temperature on admission 98°. He understands everything said to him and answers sensibly. He can evolve intelligible sentences, but his memory for the names of things is very defective. On being shown various articles, such as knives, pens, chairs, &c., he is quite unable to name them, but recognises the names immediately when they are spoken. He can write, but his spelling is entirely at fault. Thus he calls a knife a "nob," and then writes it "sotpa." When asked to write down "I will come," he wrote "If hayh good," then stopped and shook his head and said it was wrong. The same sentence was then written down and he copied it quite correctly. He cannot read out aloud at all correctly, but can evidently understand written language; thus when shown the word "pen" he immediately points to a pen.

Sept. 30th.—Ordered five grains of iodide of potassium three times a day.

Oct. 4th.—Complains of more pain in the head, and giddiness. Speech getting more confused and indistinct, and he seems stupid and dazed. Tongue very tremulous when protruded.

6th.—Kept his bed to-day. Distinct impairment of power in right arm and leg. Can hardly raise right arm at shoulder-joint. Complains of "pins and needles" in right hand. Temperature 97·4°.

8th.—Much more dazed and confused. Memory for names quite absent. Can hardly speak an intelligible sentence. Right arm and leg more powerless. Right plantar reflex much exaggerated. Patellar reflexes both marked, but no difference. Decided impairment of movements of right side of face; wrinkles less marked on right side. No nystagmus. Patient yawns frequently.

9th.—Speech almost entirely lost. When asked his name, mutters unintelligibly. Hemiplegia almost complete. Marked ankle clonus easily obtained in both legs. Mouth drawn to left. Both optic discs very pale, but no other change in them.

10th.—Is now passing urine involuntarily. Right patellar and plantar reflexes much increased. Well marked-bicipital reflex obtainable in right arm.

11th.—Temperature 97°; pulse 64; respiration 20. More drowsy. Sighs and yawns frequently. Fæces are now passed involuntarily. Pupils unequal; right the larger. Marked contracture of flexors of right elbow. Complete aphasia.—11 P.M.: Lies in a semi-comatose condition, and can hardly be roused.

12th.—At 1.30 A.M. the patient was put under chloroform and trephined by Professor Chiene at a point opposite the left inferior frontal convolution. On the inner table being perforated by the trephine there was free hæmorrhage from the middle meningeal artery, which ceased when the disc of bone was removed. On opening the dura mater nothing abnormal could be seen, no signs of inflammation of the membranes, and no accumulation of pus or other fluid. On the chance of there being deep-seated suppuration a very fine cataract-knife was introduced into the brain substance in three directions, but no pus was found. The wound was

then closed and dressed. Strict antiseptic precautions were observed throughout. The temperature rose steadily after the operation from 96·2° at 2.30 A.M. to 100·8° at 12 P.M. Patient quite comatose all day.

13th.—Still comatose. Pulse 150; respiration 38; temperature rising steadily. Is fed every two hours with enemata of pancreatised beef-tea. The contracture of right arm and exaggerated reflexes of right leg have quite disappeared since the operation. The wound was opened antiseptically, and a probe introduced, but no collection of blood or pus was found between the membranes. Temperature at 12 P.M., 105°; pulse 167; respiration 54.

14th.—The temperature rose to 107° at 6.15 A.M., and death occurred a quarter of an hour afterwards.

Necropsy.—On opening the cranium the membranes were found to be healthy. The convolutions were much flattened, especially on the left side. The arteries and veins were quite normal. The trephine wound was immediately over the commencement of the Sylvian fissure. Beneath the wound there were several small ecchymoses of recent origin, the surrounding brain tissue being pale and apparently abnormal. On removing the brain, the left hemisphere, but especially the temporo-sphenoidal lobe, was pale and swollen and decidedly larger than the right. The lateral ventricles were dilated, and contained an excess of clear serous fluid. On section immediately through the centre of the trephine wound, the whole of the temporo-sphenoidal lobe was seen to be occupied by a large glioma and surrounding softening; the tumour extended backwards as a uniform infiltration as far as the limit of the posterior horn of the lateral ventricle. It had invaded Broca's convolution and the adjacent parts of the ascending frontal and parietal convolutions. Immediately beneath the superficial ecchymoses in Broca's convolution there was a recent hæmorrhage (apparently the result of incisions made at the time of the operation with a fine knife to explore for pus) about the size of a walnut. A small nodule of tumour, of a similar nature and about the size of a cherry, was situated in the right hemisphere at the middle third of the ascending parietal convolution.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Thoracic Aneurysm treated by the Introduction of Steel Wire into the Sac.—Changes in Bone and Soft Tissues after Amputations.

DR. GEORGE JOHNSON, F.R.S., President, was in the chair at the meeting of this Society held on Tuesday last.

Dr. CAYLEY read a paper on a case of Thoracic Aneurysm treated by the introduction of Steel Wire into the Sac. The patient was a man aged forty-eight, who was admitted into the Middlesex Hospital on June 5th, 1885. He had been suffering from symptoms of a thoracic aneurysm since November, 1884, but it was not till five days before his admission that a pulsating tumour made its appearance at the root of the neck, rising about three inches into the neck behind the right sterno-clavicular articulation. The patient was at first treated according to Tufnell's method and given large doses of iodide of potassium. The tumour continued to increase in size, and it was evident that it must either soon burst externally or extravasate among the tissues of the neck. On June 24th Mr. Hulke introduced into the sac, through a fine cannula, forty feet of steel wire. This caused no constitutional disturbance or local pain, and this portion of the aneurysm became completely consolidated. Towards the middle of August the signs of extension of the intra-thoracic portion of the aneurysm—increasing dyspnœa and severe paroxysmal cough—became more marked, and there was an increase of pulsation behind the sternum and towards the left sterno-clavicular articulation. As it was evident that the aneurysm must soon prove fatal from pressure on the trachea, it was determined to endeavour to consolidate the part of the sac producing this pressure. Accordingly, on Sept. 10th, Mr. Gould, in the absence of Mr. Hulke, introduced a cannula just above the left sterno-clavicular articulation, directing the instrument obliquely towards the middle line, and introduced 34 ft. 9 in. of wire. No constitutional disturbance followed, but no relief was given to the symptoms, and the patient died in a paroxysm of dyspnœa on September 19th. On post-mortem examination a large aneurysm was found springing from the ascending part of the arch and communicating with the vessel by a very large orifice; the whole of the upper portion was completely filled by clot, embedded in which was the wire. The walls of the aneurysmal sac, where it projected into the neck, consisted only of a little condensed connective tissue. The lower portion of the sac, near its origin from the aorta, caused compression and flattening of the trachea just above its bifurcation. The first operation produced the desired result in preventing the imminent rupture of the aneurysm. The size and connexions of the sac rendered the second operation ineffectual.—Dr. GEORGE JOHNSON only knew of one case of thoracic aneurysm that became cured; the man died, aged seventy, thirteen years after the symptoms began. The dangers of introducing wire into an aneurysmal sac were—the causation of intense irritation locally, the liability to the production of embolism, and the tendency to cause ulceration and rupture.—Mr. R. BARWELL agreed that the value of the method of treatment was not yet known. As far as he knew, Dr. Cayley's was the ninth case of aneurysm that had been so treated. He did not think the record was encouraging. The following cases had been placed on record:—1. By Moore, 1864; thoracic aneurysm; twenty-six yards of iron wire introduced. 2. Levis, 1873; subclavian aneurysm; horsehair used. 3. Bryant, 1873; popliteal aneurysm; twenty-six feet of horsehair. 4. Loreta, 1883; abdominal aneurysm; two mètres of fine iron wire; death suddenly ninety-two days later. 5. Rubio of Madrid, 1874; innominate aneurysm; horsehair, two to three mètres. 6. Van der Meulen of Utrecht, 1879; woman, aged thirty-two; aneurysm of brachial artery; catgut. 7 and 8. Baccelli; two cases; 1878. Cases were quoted apparently proving that the manipulation of aneurysms in attempts at operations may prove a powerful cause in the production of consolidation and consequent cure.—Dr. PAUL had operated on a case of aneurysm of the innominate artery occurring in a middle-aged native of India. He had introduced as much as fifteen feet of horsehair through a cannula; there was no bleeding or discomfort. Next day there was slight increase in the size of the aneurysm, but the tumour felt more solid, and pulsation was unabated. The day after the tumour had greatly increased in size; there was much difficulty in breathing; the skin was œdematous over the tumour with a discoloured spot, and the patient was in great distress. Death ensued the third day after the operation. At the necropsy there was considerable coagulation around the horsehair in the aneurysm and signs of inflammation. The case occurred in the General Hospital, Madras.—Mr. BRYANT thought there was more in the method of treatment than appeared on the surface. In cases where neither ligature nor pressure was available, and in which there was not a large opening into the aneurysm, this method might prove of value. He should prefer the use of horsehair, fishing-gut, or catgut, to the employment of iron or other metallic wire. In the case of popliteal aneurysm in which he had adopted the principle of filling the sac with horsehair, there was as much success as possible in the face of ulcerative endocarditis. In cases of thoracic and abdominal aneurysm the method, rightly applied, was likely to be advantageous, and he regarded Loreta's case as favourable so far as it went.—Mr. HOLMES regarded both Mr. Bryant's and Loreta's cases as encouraging; he could not, however, accept Mr. Barwell's view that manipulation was of any value in the causation of consolidation. He believed that Dr. Murray of Newcastle was the originator of the idea of introducing catgut into aneurysmal sacs. The question lay between the introduction of wire and the use of electrolysis; the latter method had proved unsuccessful in his own hands. In Mr. Moore's case the quantity of foreign substance introduced was probably too great, leading to much local disturbance. Mr. Holmes preferred horsehair to iron wire as the material for introduction into aneurysmal sacs.—Mr. HULKE felt strongly that Mr. Moore's method was fraught with danger and risk; the wire used was soft and bent about in all directions. If the opening had been large there was great probability of the main channel of the aorta being entered. The circumscribed hæmatoma that developed in Dr. Cayley's case was possibly due to the employment of a Southey's trocar, in which there were lateral openings through which some blood oozed. He thought there was no risk of scratching the internal surface of the sac. There would be much difficulty

in regulating the distance to which horsehair would travel inwards. Wire could be more certainly rendered aseptic than other materials, even catgut. With electrolysis he had had positively disastrous results; ergot was valueless.—Dr. CAYLEY considered that the risk of embolism in sacculated aneurysm was not great; in Mr. Moore's case the emboli probably came from vegetations on the valves. It was generally believed that bruits, being due to fluid eddies, developed by blood passing through narrow orifices, and so the existence of bruits would rather favour the view that the communication between artery and aneurysm was narrow; but he had not verified this suggestion.

Mr. GEORGE POLLOCK read a paper on the Changes which occur in Bone and Soft Tissues after Amputation of a Limb, and from certain other conditions. The changes to which the author drew attention included not only such as are met with in the bone of a stump of an amputated limb and in parts affected with paralysis, but also those observed in parts which have extra work thrown upon them in compensation for the loss of other parts with which they were originally associated and had to act. The differences found in the two lower extremities of an old man who had suffered amputation of one thigh many years before death were described. On the amputated side the femur was found wasted, and the neck joined the shaft at a much more open angle than natural; while on the other side the femur was hypertrophied, and the neck joined the shaft at a right angle. The causes and results of these changes and of the corresponding changes in the two sides of the pelvis were described. The conditions observed in a man whose thigh had been amputated in infancy was related; and reference was made to observations by Mr. Hilton on the changes that follow amputations. The bones of the right extremity from a case of paralysis were also exhibited; they were greatly atrophied and had undergone fracture; while the excessive hypertrophy which occurs in one limb after amputation of the other was illustrated by a well-marked case. The views of various writers as to the causes of the changes in these cases were given, and the author remarked that the alterations in both muscle and bone are often more rapidly effected, and also more extensive, than is generally supposed. He drew attention to the fact that in the cases related two distinct and different processes—the one atrophy and the other hypertrophy—go on side by side, and asked whether this fact may not admit of practical application; whether in appropriate cases, by a careful combination of exercise, position, and rest, together with the use of mechanical appliances, we might not do something to accelerate improvement. A table of specimens was added to the paper.—Professor HUMPHRY showed a specimen of a skeleton in which the right lower limb had been amputated very early in life. The ala of the ilium was remarkably atrophied and incurved; the descending processes were much atrophied; the circle of bone that entered into the formations of the brim of the pelvis was not atrophied, so that neither upper nor lower openings of the pelvis were lessened in size. The femur was very short; the acetabulum diminished in size. At birth the angle of the femur was 140°. The gradual diminution in the size of the angle was possibly due to pressure; but it should be remembered that growth takes place directly in opposition to pressure. The angle varied, but was about 130° in adults; it was in inverse proportion to the development of the pelvis and the stature. It attained its maximum in tall men and was reduced to a minimum in short women. That the angle diminishes in old age was a proposition founded on insufficient evidence. Meckel also doubted whether the angle progressively diminished in size as age advanced. In a case of hydrocephalus, the patient dying at the age of four years, the skeleton was most remarkably attenuated, and the angle of the femur measured 160°; there was no sufficient explanation to account for this occurrence, nor for the fact that after amputations of the thigh the angle was increased in size. Growth of the whole body was associated with the growth at the epiphysial lines; arrest of growth in these lines prevented growth of soft parts of the limbs.—Mr. J. H. MORGAN showed the femora of a man, aged fifty at death, who at the age of twenty-five suffered amputation of one thigh. There was a difference of 3 oz. 5 drs. in the weight of the bones; there was a slight difference in the size of the angles of the femur.—Mr. T. SMITH said the obliquity of the neck of the thigh-bone varied inversely with the length of the stump. He had taught (perhaps erroneously) at St. Bartholomew's Hospital that the angle diminished as age advanced, and this was due to pressure. — Mr. HOWARD MARSH had observed that in some cases of conical stump the fault appeared to be due to a continuance of growth at the upper end of the long bone, as the humerus. Curving in bones meant strength; atrophy generally led to straightness, which was possibly a reversion to the fœtal type, where the long bones have no curves.—Professor HUMPHRY did not consider that a conical stump could develop in a few months as the result of continued growth of bone. He still maintained that it was not a normal law for the femoral angle to diminish with age.

The following is the list of officers and other members of Council nominated for 1886-87:—President: *Mr. G. D. Pollock. Vice-Presidents: *Dr. J. W. Ogle, Dr. Hermann Weber, Mr. Thomas Bryant, and Mr. Matthew Berkeley Hill. Treasurers: Dr. C. B. Radcliffe and Mr. Timothy Holmes. Secretaries: *Dr. W. B. Cheadle and Mr. Howard Marsh. Librarians: Dr. Wilson Fox, F.R.S., and Mr. J. W. Hulke, F.R.S. Other members of Council: Drs. T. Buzzard, W. S. Church, *T. H. Green, *J. W. Legg, *W. Moxon, *H. C. Rose, Messrs. *Marcus Beck, *E. Bellamy, *J. McCarthy, and W. Rivington. Those gentlemen to whose names an asterisk is prefixed were not on the Council, or did not fill the same office last year.

MEDICAL SOCIETY OF LONDON.

Combined Action of Cocaine and Nitrate of Silver in Superficial Affections of the Eye.—Severe Endocarditis.

AN ordinary meeting of this Society was held on Monday last, Dr. Douglas Powell, Vice-President, in the chair.

Mr. BRUDENELL CARTER read a brief paper on the Combined Action of Cocaine and Nitrate of Silver in Superficial Affections of the Eye. He began by recalling how nitrate of silver had fallen out of use, owing to the pain it caused and the difficulty there was in limiting its action to the desired part. Cocaine overcomes the latter difficulty and prevents lacrymation. After making the surface of the eye insensitive by cocaine, the diseased parts can be accurately and definitely attacked by nitrate of silver. In cases of simple chronic congestion, or associated with phlyctenula, the results have proved most beneficial. Vascular keratitis was also a possible field for the use of this method. He said improvements in minor points of therapeutics were often of much practical value, and hence he had ventured to bring these facts before the Society. In chronic congestion around an old cicatrix of an operation wound, as well as in the more general superficial congestion left behind in the declining stages of interstitial and other forms of corneal inflammation, the method had also been employed.—Mr. H. E. JULER dilated on the value of cocaine in numerous superficial affections, including tumours of the skin, when a hypodermic injection, carefully administered, was most useful.—Mr. W. H. JESSOP had employed the combination of cocaine and nitrate of silver in cases of corneal ulcer and chronic congestion; cocaine acts on the terminations of the sensory nerves and constricts the blood-vessels.—Mr. B. CARTER had observed denudation of the corneal epithelium as the effect of the use of cocaine.

Dr. A. E. SANSOM read a paper on Severe Cases of Endocarditis; its Causes and Treatment. He objected to the term "malignant," and alleged that in all cases there was loss of tissue—necrosis or ulceration. The first case narrated occurred in a married woman aged thirty, in whom the disease began six weeks after parturition. Embolism of the left radial artery and of the renal artery, albuminuria, hæmaturia, and casts, mitral regurgitation, and high fever were the chief events. The second case was that of a single woman, aged twenty-six, in whom there was mitral stenosis and regurgitation, pneumonia, and (?) phlebitis of right arm and left leg. In both cases there were evidences of septicæmia. What relation existed between the infective foci and the valvular lesions? There was evidence of pre-existing disease of the valves in one of the cases, and this illustrated a general law that obtained in cases of mycosis endocardii; Osler's researches had set this law on a firm basis. When Ort injected fluid containing microbes into a rabbit's vein, having previously caused a traumatic lesion of the valves, a series of phenomena ensued, terminating in death in a few days, with lesions practically similar to those found in the disease in man. It seemed from these experi-

ments that varying septic organisms could give rise to the disease, but varying features were met with; the lesions from the use of streptococcus were more severe than those resulting from staphylococcus. It would appear that the cause of osteomyelitis may also give rise to abscesses elsewhere; staphylococcus pyogenes aureus was the infective agent and cause, as artificial cultivations proved. As to treatment, the adoption of preventive hygienic measures was the main line. Parturient women must be protected from septic influences, and especially if there be pre-existent valvular lesions of the heart. A young woman with symptoms pointing to severe endocarditis, under Dr. Sansom's care, improved and recovered after the prolonged administration of thirty-grain doses of sulphocarbolate of soda; in this case there was a very curious mental condition and evidence of extremely low arterial tension. The following propositions were presented for consideration: (1) severe endocarditis is due to the influence of septic micro-organisms; (2) treatment based upon this view gives great prospect of success.—Dr. DOUGLAS POWELL thought the term "severe," even when qualified by non-rheumatic, liable to misconception.—Dr. S. MACKENZIE suggested that the word "essential" would meet all the clinical requirements of the case, the term being used in the same sense as "essential" anæmia; it implied nothing as to pathology. In a severe case he had employed benzoate of soda in twenty- to thirty-grain doses; the patient recovered. But it should be remembered that some severe cases recovered without special treatment.—Dr. S. PHILLIPS considered that neither the term "severe" nor "essential" met the exigencies of the case. Reference was made to cases in which the symptoms were almost "latent." He thought it was open to question whether some of the cases were not due to rheumatic poison.—Dr. GILBART SMITH related some cases illustrating two varieties of the disease.—Dr. SANSOM, in reply, could not agree to the term "essential."

Dr. W. H. WHITE showed a pathological specimen of an Aneurysm of the descending part of the Arch of the Aorta.

The following are the names of Fellows of the Society nominated for office by the Council for the ensuing year:—President: R. Brudenell Carter. Vice-Presidents: J. L. Down, M.D.; S. Cartwright; T. L. Brunton, M.D., F.R.S.; Sir W. MacCormac. Treasurer: A. E. Durham. Librarian: W. H. Allchin, M.B., F.R.S.E.; Honorary Secretaries: J. H. Morgan, M.A.; S. West, M.A., M.D. Secretary for Foreign Correspondence: Felix Semon, M.D. Council: J. N. C. Davies-Colley; S. H. Davson, M.D.; D. W. Finlay, M.D.; J. Fowler, M.A., M.D.; A. Pearce Gould, M.S.; F. De Havilland Hall, M.D.; G. M. Humphry, M.D., F.R.S.; J. Hutchinson, F.R.S.; J. S. Keser, M.D.; S. Mackenzie, M.D.; W. M. Ord, M.D.; Isambard Owen, M.A., M.D.; Bernard Pitts; Walter Pye; J. P. Richards; J. Knowsley Thornton; Frederick Treves; T. T. Whipham, M.A., M.B.; W. H. White, M.D.; C. T. Williams, M.A., M.D.

HARVEIAN SOCIETY.

Neurotic Treatment of Catarrh.—Animal Vaccination.—Cyanosis in Newly-born Children.

A MEETING of this Society was held on Thursday, Feb. 4th, J. Hughlings Jackson, M.D., F.R.S., President, in the chair.

Dr. D. B. LEES read a paper on the Neurotic Treatment of Catarrh, which will be found *in extenso* in our columns.—Dr. CLEVELAND took exception to the view that it was desirable to stop the flux in a common nasal catarrh, and instanced the very common belief that by so doing the catarrh was rendered more liable to attack the lower air-passages. He believed in the value of diaphoretics as proved by the test of experience, and thought that our knowledge of the neurotic origin of colds was not yet sufficiently advanced to warrant such very free use of neurotic remedies.—Dr. STEPHEN MACKENZIE doubted whether there was really any scientific foundation for the popular notions with respect to the infectiousness of catarrh, although many positive statements had been made to that effect. He agreed in the view that catarrh was essentially reflex in its origin, but at the same time diaphoretic treatment was important when applied at the right period. With the onset of a cold the surface was chilled and the interior of the body felt over-heated; sweating under such circumstances always gave relief.—Dr. T. MORTON expressed full belief in the contagiousness of colds. He thought that influenza was the most marked instance of it, and bore the same relation to ordinary catarrh as did cholera to ordinary diarrhœa. It was probable that many patients would be unwilling to submit to the active medicinal treatment proposed by Dr. Lees.—Dr. EWART pointed out that the proposed neurotic treatment applied mainly to catarrh of the upper respiratory passages. Local and general catarrhs differed considerably, and the latter were frequently to be seen affecting the whole alimentary tract, especially in children. The treatment in such cases was to encourage the flux and assist its escape as far as possible. Catarrhal inflammation was apt to spread by continuity on mucous surfaces, by means of the sero-mucous secretions.—Mr. J. W. MASON advocated the diaphoretic treatment as being most in accord with the natural process of cure.—Dr. LEES replied.

Mr. SHIRLEY MURPHY read a paper on Animal Vaccination, in which he discussed the advantages and disadvantages attendant upon the use of animal lymph. He argued that the evidence which was afforded by publications within the first ten years after the introduction of vaccination tended to show that humanised lymph now in use in this country was as protective as that of the earlier period. Jenner's experiments of inoculation with small-pox of persons previously vaccinated were performed mostly upon adults, whereas it was noteworthy that these persons who contracted small-pox after vaccination were mostly vaccinated in infancy, and this was true for those of Jenner's time as well as at the present. Animal vaccination was a convenient method of producing large supplies of lymph which in its clinical effects was practically identical with humanised lymph, but its employment had the advantage of avoiding certain dangers associated with the use of humanised lymph, and which deserved to be taken into account, although with care and knowledge they might be reduced to an infinitesimal amount. Much stress was laid upon the superiority of direct vaccination, whether arm to arm or calf to arm, over that which necessitated the employment of stored lymph; and the hope was expressed that vaccination with stored animal lymph would not be allowed to replace arm-to-arm vaccination, and it was pointed out that the best way of utilising the calf would be to modify the virus of small-pox and render it available for the purposes of vaccination.—Mr. WATERHOUSE recounted a series of five cases in which inoculation had produced abnormal results. The lymph in each instance had been taken direct from the calf, was of undoubted purity, and was introduced by scratches in the ordinary way. The first irritation of the inoculation passed off rapidly, but about the end of the first week a pimple appeared, which in the course of three weeks developed into a small tumour bearing an almost exact resemblance to a red currant raised above the surface, intensely irritable and with no areola. He had had many good results from the use of calf lymph, especially in revaccination, where, even in the presence of good scars of primary inoculation, the vesicles were as large and well developed as if no marks at all were to be seen.—Dr. RENNER could only describe the results obtained in Mr. Waterhouse's cases as spurious vaccinia. No harm appeared to have been done. He doubted the exact relation between vaccinia and small-pox. They seemed to belong to the same class of cases, but to be differentiated by their seat. Cow-pox was local and variola general, but both were more virulent in their natural than in their cultivated state. The systemic reaction on the eighth day was due to the irritation of the skin, and was in direct proportion with its severity. The notion that calf lymph was unsafe could only be explained by ignorance or carelessness in its use. Only very few cases of true skin disease had ever been reported as resulting from it. The results obtained from stored lymph of any kind could not be properly compared with those of fresh calf lymph. The risks of inoculation of tubercle had been conclusively proved to be infinitesimal.

At the meeting on Feb. 18th, J. Hughlings Jackson, M.D., F.R.S., President, in the chair,

Dr. SIDNEY PHILLIPS showed recent specimens of the Intestines and Spleen of an Infant the subject of typhoid fever, exhibiting the characteristic lesions in all stages.

Mr. G. EVERITT-NORTON read a paper by Mr. Rayner illustrating a peculiar form of Cyanosis affecting a number of newly-born children under his observation. Several children had been affected at the same time, and, although deeply cyanosed, did not exhibit any other signs of ill-

health. Careful investigation failed to trace any cause for it until the napkins worn by the infants came to be examined. It was then found that these had all been recently marked with a large stamp in a coloured ink containing chloride of anilin. Further experiments with these napkins upon perfectly healthy children proved that the absorption took place in about twenty-four hours, and the cyanosis continued for about five days, the health of the children not being in the least disturbed.—The PRESIDENT and Dr. SEDGWICK referred to the possible dangers of staining by the internal administration of anilin and to the lowering of temperature which sometimes accompanied it.—Dr. MAGUIRE pointed out that the dye might cause cyanosis either by direct staining or by destruction of the red blood-corpuscles, as in poisoning by chlorate of potash; or, by combining with the hæmoglobin, the anilin might prevent the chemical process of oxidation; either of the latter processes might cause lowering of temperature. One of the cyanosed infants was exhibited to the Society.

Dr. SANSOM read a paper on Modern Remedies in Cardiac Disease, which will shortly be published in full.

ACADEMY OF MEDICINE IN IRELAND.

Ovarian Displacements.

AT a meeting of the Obstetrical Section, on Jan. 8th, the PRESIDENT (Dr. More Madden) read a paper upon Ovarian Displacements, which, he said, apart from those caused by disease, were long completely ignored by gynæcologists, and even yet receive less consideration than they demand. From clinical experience he was convinced that ovarian hernia and prolapse were both much more common than they are generally supposed to be. In every-day gynæcological practice a certain proportion of patients complain, *inter alia*, of dull, sickening, left-side pain, usually referred to the left inguinal region. And in many instances, if further investigation and physical examination were made, this may be found traceable to some ovarian displacement. Ovarian hernia may be inguinal or femoral, though more frequently the former, appearing either as a direct hernia in the inguinal or femoral regions, or in the more usual oblique form, making its way through the canal into the labium. Still more common, however, than either of these herniæ is the prolapsus of the ovary, and more especially that of the left ovary, into Douglas's space, where it may be discovered on examination as a small, oblong, dense, and highly sensitive tumour in the post-cervical recto-vaginal fossa. Ovarian herniæ, although in some instances congenital and occasioned by similar causes to other forms of hernia, are much more usually the result of the violent muscular efforts of the second stage in cases of difficult labour, and most frequently are observed in multipara whose abdominal parietes have been relaxed and viscera compressed by their repeated gestations. But in the most common form of ovarian displacement—viz., that downwards into Douglas's space—the causes are more generally gynæcological than obstetrical, the ovary being either extended from its normal position by the *vis a tergo* of abdominal, uterine, or peri-uterine tumours or enlargements, or else dragged down by the tension of uterine displacements on the ligaments. The symptoms of ovarian displacement are the sudden occurrence in either the inguinal or femoral regions, the labia, or in the recto-vaginal fossa of an ovoid tumour, which in its ordinary condition is usually about the size of a small walnut, increasing, just before the menstrual period, to the size of a Tangerine orange. This gives rise to a dull aching pain, which in the interspace gradually subsides until the functional activity of the displaced gland is again stimulated by the approach of the next catamenial epoch. In some instances, however, the dull, sickening pain and discomfort thus occasioned never subside, but increase to an unbearable extent until relieved by appropriate treatment. From enterocele an ovarian hernia may be distinguished by not being smooth and globular, nor giving rise to gurgling on compression, or resonance on percussion; whilst from epiplocele it may be differentiated by the absence of the peculiar soft doughy feeling, and irregular, ill-defined outline of the latter. From enlarged inguinal glands a displaced ovary may be diagnosed by the smaller size and simultaneous appearance of several glands in the same situation in the former case. From pelvic, psoas, and other abscesses in the groin, ovarian herniæ may be recognised by the history of the case and the physical character of the firm, ovoid, well-defined tumour if ovarian. A prolapsed ovary in Douglas's space may be distinguished from a posterior uterine displacement, or tumour, by recto-vaginal examination and the use of the sound; whilst in the differentiation of this condition from a tumefaction caused by cellulitis, rectocele, a small parovarian cyst, or a pedunculated fibroma, the same methods of examination will serve to determine not only the presence of any uterine malformation, but also the character of the tumour and the existence of any fluctuation. If the uterus be found normal in size and position, and if there be no fluctuation, in the case of any small, well-defined, firm ovoid tumour in this situation, which, on being touched, gives rise to a peculiar dull, sickening pain, we may confidently conclude that we have to deal with a prolapsed ovary. The treatment of ovarian protrusions must obviously be dependent on the situation of the displacement—i.e., whether it be at either of the abdominal rings, or downwards into the labium, or into the recto-vaginal fossa. In the first form, whether the ovarian hernia be above or beneath Poupart's ligament, an effort should primarily be made to reduce it, if possible. In the majority of cases, however, these herniæ are not reducible when seen by the gynæcologist, and even in those which are reducible the pressure of a truss is neither endurable nor effectual. And in the majority of cases we must be content to protect the hernia from any further protrusion or external injury by a well-fitting hollow truss. Before the application of this an attempt should be made to lessen the local hyperæsthesia by topical sedatives, poultices, &c., or, if necessary, by leeching. At the same time this constitutional irritation, always present in all ovarian displacements, should be allayed by free doses of bromide of potassium, which may generally be combined with tonics in these cases. When, however, such measures prove ineffectual to relieve the intolerable, constant, dull, aching pain, aggravated into acute suffering at each monthly recurrence of the menstrual period, when the patient complains of marked gastric irritation, and repugnance to all food is increased to positive sickness of stomach whenever the tumour is touched, and when her health is thus broken down, and her life imperilled by the consequence of this apparently trivial and too often neglected displacement, then we should urge the extirpation of the dislocated and probably diseased gland, in whatever situation it may be extended.—Dr. DOYLE looked upon over-fulness of the intestines as a not uncommon cause of ovarian prolapse. The pressure of the sigmoid flexure upon the left side accounted for the more frequent prolapse on that than upon the right side. Many cases could be cured or relieved by keeping the colon emptied with mercury.—Dr. ATTHILL had very seldom found mechanical treatment of any service in cases of prolapsed ovary.—Dr. W. J. SMYLY showed a fibro-myomatous tumour which he had enucleated from the cervix of a patient in the City of Dublin Hospital. These tumours occurring in this situation are interesting on account of their rarity, and the obstruction which they are liable to cause during delivery. The operation was simple, and the patient made a good recovery. He also exhibited both ovaries and the right Fallopian tube which he had removed from a patient suffering from uterine fibroids, and whose life was seriously endangered by violent hæmorrhages.—Dr. MACAN entirely agreed as to the rarity of cervical tumours and the dangers that might arise from their presence during labour. They might necessitate the destruction of the child, and might subsequently undergo disintegrative changes with accompanying septicæmia. As regards labour, uterine tumours were dangerous in proportion to their nearness to the cervix. In reference to Dr. Smyly's second case, he regarded the removal of the ovaries for bleeding fibroids as one of the greatest improvements in modern gynæcological surgery.—Dr. ATTHILL had formerly relied in cases of bleeding fibroids upon scraping out the uterus and applying nitric acid after the necessary dilatation. Finding, however, that the relief never was permanent, he had abandoned this treatment. As a temporising measure he had experienced better results from the occasional injection of iodised phenol. This might be done once a month where more decisive measures did not seem necessary. Under such treatment he had found the hæmorrhages lessen in amount, and the intervals between them lengthen. Only in a limited number of cases was the pain and hæmorrhage such as to necessitate surgical inter-

ference. Enucleation of large tumours was much the most dangerous mode of surgical treatment. When he had formerly tried it he lost patients, and succeeded in removing the tumour only in a few cases. Now he would give the preference to removal of the ovaries, being prepared, in cases where the tumour was large and the ovaries might not be found, to remove the entire uterus. He did not question that palliative measures had formerly been too exclusively relied on.

Reviews and Notices of Books.

Surgical Diseases of the Kidney. By HENRY MORRIS, M.A., M.B., F.R.C.S., Surgeon to and Lecturer on Surgery at Middlesex Hospital, Member of the Conjoint Board of Examiners of the Royal Colleges of Physicians and Surgeons of England. With 40 Engravings and 6 Chromo-lithographs. Cassell and Co., London, Paris, New York, and Melbourne. 1885.

MR. MORRIS'S volume is one of Messrs. Cassell's series of clinical manuals, and it is destined to take a very high rank in this series. The surgery of the kidney has become of late years a very important branch of practice; and the extension of surgery to an organ which has been generally considered to be quite beyond the reach of the knife has necessitated a much more careful study of many of the points in the anatomy and pathology of this organ than was essential so long as it was relegated to the care of physicians only. This is rendered abundantly evident in the work before us. In the opening chapter we have a short account of the regional anatomy of the kidney. This is followed by several chapters on the various misplacements, malformations, and irregularities met with in the kidney; for so soon as surgery approaches an organ, such facts assume the highest importance. Then follow descriptions of injuries of the kidney and their sequelæ and complications. From this the reader is taken to consider the renal affections secondary to diseases of, or operations upon, the lower urinary organs. In the concluding chapters renal calculus, scrofulous kidney, tumours of the kidney, and operations upon the kidney are described.

An enumeration of the ground covered by Mr. Morris clearly shows that a new line has been struck out, and that in this manual we have a distinct addition to surgical literature, which gives information not elsewhere to be met with in a single work. Such a book was distinctly required, and Mr. Morris has very diligently and ably performed the task he took in hand. Everywhere the chapters show abundant evidence that neither time nor pains have been spared to collect material from all accessible sources, and it is a full and trustworthy book of reference both for students and for practitioners in search of guidance. If we were to make any exception to this comment on the work, it would be directed to the chapter on tumours of the kidney, in which we think that sufficient pains have not been taken to distinguish between sarcoma and carcinoma. The term "cancer" is sometimes employed, and if it is used as referring exclusively to carcinomatous growths, the information is misleading as to the relative frequency of this form of malignant tumour, for primary sarcoma is much more frequent than primary carcinoma. This error has probably arisen from including under the latter cases which are described as "cancer," that term being used to signify a malignant tumour only, and not a special anatomical structure. The illustrations in the text and the chromo-lithographs are beautifully executed. The work altogether will considerably add to Mr. Morris's reputation as an author.

A Complete Pronouncing Medical Dictionary, embracing the Terminology of Medicine and the kindred Sciences, with their Signification, Etymology, and Pronunciation. By JOSEPH THOMAS, M.D., LL.D. Pp. 844. Philadelphia: J. B. Lippincott. 1886.

THIS work is a creditable attempt to supply the student with a dictionary of convenient size, to which he may refer when he meets with an unfamiliar word in the course of his reading. The words to which significations are supplied are printed in clear type. The etymology is then given from the Latin and Greek where this is known, and occasionally a French synonym is added. The explanations are generally short and to the purpose. The pronunciations are, as all such efforts must be, very unsatisfactory and curious. "Koo-deh-von," however the vowels may be accentuated and marked to pattern, scarcely represents the sound a Frenchman makes when he employs the expression "coup de vent."

It is natural and reasonable to contrast Mr. Thomas's work with the well-known works of Dunglison, Littré, Lanzilotti-Buonsanti and Pini, and with the lexicon now in course of publication by the New Sydenham Society by Messrs. Power and Sedgwick. We venture to take "Blood," the first word that presents itself to our minds, and compare the treatment it receives in these five works.

In Dunglison we find it derived from the Saxon "blod." The synonyms given are "sanguis cruor," "lapis animalis," "hæma," "blede" (old English), and "sang" (French). A tolerably good account of blood is then given, in which, however, the morphological elements of the blood are only incidentally mentioned, whilst the unsatisfactory chemistry has nearly a quarter of a column devoted to it, and the same space is wasted in giving the estimates of nineteen different authors in regard to its quantity, the list concluding with the absurd estimate of Keill, who put it at 100 lb. A short statement of its variation in disease follows, succeeded by a brief description of words compounded with blood, as blood-casts, blood-disease, blood-letting, blood-pictures, and the like. Blood-corpuscle is remarkable for its absence.

The account of blood in Buonsanti and Pini is very short and poor, but it is near the close of the second volume, which has been unaccountably curtailed, probably from impatient subscribers complaining of its tardy issue, little knowing the labour it requires.

The article "Sang" in Littré's "Dictionnaire de Médecine" occupies nearly five columns closely printed, and not far short of those of this journal in length. One column is devoted to chemistry, a little more than one to a description of the blood, and the remainder to its alterations and comparative physiology. There are numerous cross references; altogether it is a very good description.

The article "Blood" in the Sydenham Society's Lexicon occupies nearly three columns, and with the compounds nearly six. The synonyms in six languages are given. The general characters of the blood as a whole are shortly but clearly described, then those of the red and white corpuscles of the serum and of the crassamentum, and finally there is an account of their development.

In Dr. Thomas's Dictionary the account of blood is meagre. The Latin, Greek, and French synonyms are given, the pronunciation of the French *sang* being given as "son," which is hardly correct. It is explained as being "the red fluid which circulates through the cavities of the heart, the arteries, and the veins." Why are the capillaries omitted? It is stated to be "red, and usually warm in vertebrated animals"; but surely the amphibia, reptiles, and fishes would outnumber birds and mammals. In regard to the chemistry, which is next described, it errs as far in brevity as Dunglison and Littré do in prolixity, or it is merely said that it "contains albumen in three states of modification—viz., albumen properly so called, fibrin, and red particles"—a description

which we fear would be marked with a "0" in an examination paper. Serum and clot are then briefly described, and ten lines more are devoted to arterial and venous blood. We think "blood" required a more extended notice than this.

In regard to materia medica and therapeutics, the author has not thought it expedient, perhaps from considerations of space, to give the officinal preparations of any other country than the United States. There are many words absent that we should have expected to find: thus cestode and trematode worms receive no mention; the forms of cells such as prickle, ribbed, adelomorphous, and the like, are omitted; none of the varieties of cataract are given; and the mineral springs of Europe and of America are not alluded to.

Still, though there are a good many shortcomings, the work on the whole is a valuable one. The author must be a man of considerable erudition, and the student will find it a serviceable addition to his library.

The International Journal of the Medical Sciences. Edited by J. MINIS HAYS, A.M., M.D., Philadelphia; and MALCOLM MORRIS, F.R.C.S., London. New Series, Vol. 91. London: Cassell and Co. 1886.

THE first number of this journal does great credit to the editorial staff, and will do much to secure a large circulation for the new periodical. The American Journal has long held a very high place in medical periodical literature, and the change it has now undergone has only strengthened it in all its good points. We can only hope that the editors will be able to publish as good a volume as each quarter comes round; if they do they will confer a great benefit upon the whole profession. It is impossible to refer, however briefly, to every article in the volume before us. It opens with a scholarly essay on Modern Medicine of the English-speaking Race, from the pen of Sir Henry Acland, in which is furnished a justification of the new undertaking. Then follows a discussion on the Mitral Cardiac Murmurs by Dr. Austin Flint, in which the reader will find abundant evidence of careful study and patient, exact, clinical observation. Dr. Flint considers that there are four mitral murmurs—the systolic regurgitant, the systolic non-regurgitant, the presystolic, and the diastolic. Sir James Paget contributes a short article on Imperfect Symmetry, in which he points out the departures from perfect symmetry, even in parts most alike—as the two sides of the same body; and he submits that these need more extended study, and that asymmetrical disease is as important as symmetrical disease, to which he and Dr. William Budd drew attention many years ago. Dr. Noland Mackenzie relates a case of "rose cold" in which a severe paroxysm was excited by the presence of an artificial rose free from odour or powder, from which he infers that psychical influences play an important part in this strange affection. Mitral Stenosis is discussed by Dr. Broadbent at some length, and mainly with a view of attaching diagnostic and prognostic meaning to some of the combinations of modified sounds and murmurs met with in this disease. Dr. Swan Burnett writes to show that in mumps the conjunctiva and optic nerve may be affected. Dr. S. E. Post contributes a paper on Kolpohysterectomy, with a very carefully prepared and full table of cases. Many isolated cases of interest are reported, and Mr. Hutchinson furnishes the first part of a valuable article on a Clinical Classification of Tumours. It is much to be regretted that it was not possible to publish the whole of this suggestive article in one number, for in these days, in which there is so much to read, it is a pity that even the most trifling difficulty should attend the perusal of matter of exceptional interest. The reviews are carefully done, as are also the summaries of the progress of the various departments of medical science. The entire volume is one that can only give great satisfaction to a careful reader.

The Science and Art of Midwifery. By W. T. LUSK, A.M., M.D. London: H. King Lewis.

THIS work, first published three years ago, has now reached a third edition. We reviewed the first edition fully in our columns, and the present edition consequently does not require an elaborate notice. At the same time we must repeat our high opinion of its great excellence, and also point out some of the many additions made in the present edition. The treatment of the vomiting of pregnancy, Bandl's ring, relaxation of the symphyses, the care of the new-born, the use of the incubator, the management and treatment of pelvic presentations, shortness of the cord, spontaneous version, expulsion, and evolution are more fully treated, and much new material has been introduced under each head. The chapter on puerperal fever has been in great part rewritten, and forms the best exposition of the subject to be found in any English text-book. As a full exposition of the subject of which it treats, we know of no work of greater scientific merit, or a safer guide in the practice of midwifery.

An Introduction to the Use of the Laryngoscope. By ARCHIBALD E. GARROD, M.A., M.B. Oxon., M.R.C.P. London: Longmans, Green, and Co. 1886.

THIS is, in the words of the author, "a handy guide to practitioners who may wish to acquaint themselves with the use of the laryngoscope." It is a small book of fifty-four pages, and it is not pretended that it is anything but a manual to teach the use of the laryngoscope. It can be useful only as an introduction to a larger treatise on diseases of the larynx, for a classified synopsis of their appearances in Chapter IX. is all the information afforded with regard to them. For beginners who wish to know something about the history of the laryngoscope, the method of using it, and the chief points in the anatomy and physiology of the larynx, we cannot point to a simpler or clearer epitome.

SEQUEL TO A CASE OF LYMPHADENOMA.

To the Editor of THE LANCET.

SIR,—In the hospital reports of THE LANCET for the latter part of 1883 a remarkable case of Multiple Lymphadenoma which came under my care, and was cured by arsenic, was reported. There were large bunches of enlarged glands in the neck on both sides, in both axillæ, in both bends of the arm, in the groins, in the abdomen and the bronchial glands. The man was perfectly cured by arsenic given in five-minim doses. After his discharge I met him in a state of intoxication, and strongly cautioned him about drink. A few weeks afterwards he came to me, having suffered a slight relapse. The cervical glands had begun to enlarge again. I gave him a prescription for the arsenic, and again cautioned him about drink. A short use of the arsenic sufficed to remove all swelling of the cervical glands. From this time I saw nothing of him until I was called in to attend him for acute congestion of both lungs—a very common affection here in hard drinkers. He died after a few days' illness. The glands showed no signs of disease.

I am, Sir, yours, &c.,

R. H. BAKEWELL, M.D.,
Visiting Physician to the Christchurch Hospital, New Zealand.

Dec. 1885.

UNIVERSITY COLLEGE, LONDON.—The Rev. Charles Beard, Professor Sidney Colvin, Alex. John Ellis, Professor Alfred Goodwin, Professor Christopher Heath, Professor Alex. B. W. Kennedy, Professor E. Ray Lankester, William Blake Odgers, the Right Hon. the Earl of Rosebery, and the Rev. Edward White, have been admitted as life governors of the College. The Fellows admitted are—Messrs. T. W. Allen, Arthur Berry, A. G. Bourne, L. H. Edmunds, W. A. Gostling, G. B. Mathews, F. W. Oliver, and Charles Platts.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 27, 1886.

THE subject taken by Mr. BLAND SUTTON in his recent lectures at the College of Surgeons was well chosen and ably treated. That pathological processes play a part in the differentiation of species, and that such processes are themselves subject to the laws of evolution which dominate all creation, are ideas which require for their full treatment a wide and extensive knowledge of animal life in its aberrant forms and in its morbid states. Mr. SUTTON'S contributions to morphology and comparative pathology have already proved his capacity for dealing with the more extensive subject which formed the theme of his lectures, and he has succeeded in throwing a new light upon some of the most intricate problems of pathology. In his first lecture he endeavoured to show that "correlation," or the processes of hypertrophy and atrophy, which are often intimately connected, can account for the production of racial and sexual distinctions. We do not believe that any pathologist will take exception to his definition of hypertrophy. It is true that the phrase, like that of "tumour," has come to be used very loosely, but we imagine that the laxity of language must be ascribed rather to the clinician than to the pathologist. Nevertheless, it was well to remind us that "overgrowth" and "hypertrophy" are not synonymous terms—that the excessive growth of a toe-nail or of the incisor tooth of a rodent is not comparable with the hypertrophy of a fibula in consequence of its being called to take the place of a tibia disabled by a united fracture. The demonstration that the ischial callosities of the cynomorphous monkeys are allied in nature and origin to the acquired epidermic hypertrophies known as "corns" was complete, and justified the assertion that a pathological production can be transmitted hereditarily and may assume the importance of a racial peculiarity. Correlation, however, implies the predominance of one part or organ;—in excess side by side with a dwindling even to entire disappearance of an originally associated organ—as illustrated in the hypertrophy of one kidney with concomitant atrophy of its fellow, and in the normal development of the tibia, which outstrips the fibula owing to the greater blood-supply it receives from being called on to perform the more important function. The application of these principles to the differentiation of the sexual organs formed one of the most interesting and original portions of this lecture. Hermaphroditism, which is the prevailing condition in the lowest animals, and which obtains to a certain stage of existence in the most highly organised, gives place to sexual diversity by a process of correlation. If the process be incomplete or arrested at any stage, sexual reproduction is impossible. Another example of the same kind was given in the replacement of gills by the allantois, which takes on the function of respiration. It may indeed be a question how far it is legitimate to apply the pathological term "hypertrophy" to such conditions; but we confess that, having regard to the essential changes that underlie hypertrophy, it is not possible to draw any line of distinction between the normal evolutional changes in the formation of the individual and the so-called morbid changes. We seem here to stand on the border line between the normal and the abnormal, which, after all, are but ill-defined terms in themselves.

From this wide generalisation Mr. SUTTON passed in his second lecture to explain, on the doctrine of the struggle for existence, the much-debated question of inflammation. Here the whole array of facts was presented to explain the *rôle* of the leucocytes, and the reason for their migration from the vessels in inflammation. The manner in which these problems were attacked was ingenious, and some of the statements put forward were remarkable in overturning fixed notions concerning the powers of cell life. The lecturer's view ranged over the whole of the animal kingdom, to prove that cells possess the power of ingesting and digesting foreign matters. The observations of METSCHNIKOFF, which were largely quoted, went even further, for they seemed to indicate that cells could perform the active function of surrounding and attacking, as well as consuming and assimilating, such foreign material and, moreover, that the cells could select as well as attack. What a valuable contribution to the philosophy of the Unconscious one has in these facts, if facts they be! and what a fresh impetus they give to the cell theory, which of late has been too much put into the background! But the part played by the living motile cells of the organism includes, we are told, the removal of useless organs, and the sketch given of the way in which the phagocytes consume, portion by portion the no longer required tail of the tadpole was startling to the mind content to believe that disappearance of such organs was due to loss of function and diminished blood-supply. However, assuming the premisses, the conclusion arrived at was a natural one—viz., that the presence of any irritant in the tissues will excite, according to the nature of the irritant, the greater or less accumulation of cells (leucocytes) to that part to attack the foreign intruder, and, if possible, to destroy it and render it inert. It is a bold generalisation, but it must not for that reason be set aside as too intangible; it should be capable of proof, or, at any rate, the facts upon which it is based ought to be easily confirmed or set aside. Mr. SUTTON has done good service in bringing this aspect of the subject of inflammation before the notice of pathologists who will, we trust, not be slow in testing its accuracy.

The etiology of neoplasms, which formed the subject of Mr. SUTTON'S third lecture, is a problem which has long engaged the attention of pathologists, and it was the latest explanation—that advanced by COHNHEIM of the origin of tumours from "germinal rudiments"—that Mr. SUTTON strongly put forward as the most reasonable. Of course, in the case of some tumours, as sarcomata, it is not possible to demonstrate the existence of such rudiments, but Mr. SUTTON showed that they could be found for enchondromata and osteomata, and suggested the high probability of the carcinomata arising from abnormal down-growths of epithelium. A great feature of this lecture was the attention directed to the teratomata, including congenital cystic tumours, and the suggestive inferences as to the origin of these latter from disused ducts or tubes. We need not dwell upon these questions here—the lecture speaks for itself,—

except to state that it would be difficult to disprove statements which have so firm a foundation in embryological facts. We are grateful to Mr. SUTTON for having impressed upon us the great doctrine that pathological processes are subject to the same laws as physiological; that pathology affords scope for a far wider range of inquiry than has yet been bestowed upon it; and that many of the problems which surround pathogenesis may find a solution in the observation of the lower animals and in the facts of embryology.

THERE are many aspects of suicide; for example, the social, the personal, and the moral. Our present and more special concern as medical men is with what may be designated the psychological. What is the state of mind that favours or incites to suicide? We may at once set aside those cases of self-destruction which are, as it were, symptomatic incidents or the direct issues of disease, such as the suicide of a person who suffers from suicidal mania existing before the catastrophe. We may also omit from consideration the very large class of cases which, if they be related to insanity in any real sense, have wilful suicide for their cause and madness for the outcome; we allude to those many instances in which a man, driven to his wit's end by trouble or remorse or shame, kills himself, but does the act in so bungling a manner that he lives for hours or even days after he has shot himself or cut his throat, or taken an irritant poison, and during the interval between the injury and the death exhibits symptoms of an insanity which is really the effect and not the cause of the act of self-murder. A legal fiction covers these cases, and with them most others, with the figment of "temporary insanity." We very much doubt whether there can be such a malady as that which it is sought to hypothecate for the convenient explanation of these cases. An epileptic may be suddenly seized with an impulse for which his will cannot be held responsible, or a maniac may have paroxysms of mental disease, and in either of these transient states the subject of the malady may kill himself though he is more likely to assail the life of someone else; but in such cases there is evidence of disease of the brain—we do not mean coarse lesion, but such pathological conditions as are commonly indicated by mental derangement,—and this evidence has either been forthcoming on previous occasions or will be forthcoming afterwards, if the patient should recover from the injury by which he has sought to put an end to his life; and the morbid state is, as a matter of fact, chronic or recurrent. In the absence of evidence of the sort to which we are now pointing, it must, we think, be held to be in a scientific sense unjustifiable to assume the existence of insanity in any form. Allowance will, of course, be made for a class of cases—not a very numerous one—in which the act of suicide is either the earlier or a very early symptom of insanity, and in which death occurs too quickly for the development of any other symptom, so that a precise diagnosis is impossible. This class of case is plausibly made an excuse for considering all deaths by self-murder instances of insanity. It is assumed that if the person who committed suicide had not died immediately there would have been evidence of his insanity. We concede this is a plausible, as well as a convenient, hypothesis; but it is manifestly a pure assumption almost involving a paradox, to designate this state of matter as "temporary insanity." If insanity existed, it might very well have been persistent. It is only temporary in the sense in which all things happening in time are temporary. If instead of dying the person had lived, there would have been insanity which may have been permanent. It would be far more reasonable to describe the cause of suicide as sudden or commencing insanity. To call it "temporary insanity" is altogether absurd.

Wholly apart from the theory of insanity, suicide has its psychological aspect, and it is to this we would direct attention. Distress of mind may be so great as to impel a perfectly sane mind to seek an end to its miseries in death. The sooner this truth is perceived the better will it be for all concerned, both the distressed and those around them. The notion that no one would commit suicide unless he were insane is by no means reasonable or well founded. There are states of mental agony in which the mind is in no danger of losing control of itself, and yet it is often in very great peril of being driven into a corner without seeing a way of escape, and of assuming that death is preferable to life. It is vain to try to make ourselves believe, or to persuade the experienced and observant, that anyone and everyone in his senses must needs choose to bear the ills that are rather than fly to others he knows not of. When extremities of mental misery are reached, the sane and sound consciousness is quite capable of forming a rational judgment that nothing in the future can be more terrible than the present horror. There is in all minds a tendency to think better of the unknown than of the known. The sincerely religious man, who has no doubt about the reality of his spiritual impressions and conceptions, looking at the matter from his point of view, naturally and reasonably enough imagines that it is impossible for a man to dare death and the future rather than endure any form of trouble in this life. The non-religious, or merely formal believer, does not, however, in his inner conscience feel the same, whatever may be his glib professions on the subject. It is quite conceivable to him that there are chances in favour of bettering his condition by death, even though it be by putting himself out of existence altogether. We all know how often the irreligious long to die when in pain or weariness. In plain truth, no inconsiderable proportion of mankind, we might even say the majority of mortals, are not so impressed with the future but that they would prefer to incur its risks rather than prolong the endurance of some agonies, mental and physical, here; and though we may think such persons very much in the wrong and self-deceived, we have no right to describe them as *insane*. They are as sane as those who take a different view. Why, then, should we so earnestly strive to find an explanation for self-murder by supposing temporary or any other form of insanity as its excuse? Psychologically, there is nothing whatever to necessitate or call for the idea of mental unsoundness in explanation of suicide.

The point for us, as the friends and counsellors of the sick, to consider is, whether it is not desirable to recognise, with a view to help and influence certain states of mind which are in no sense morbid, but which favour the commission of suicide. The position of the practitioner of medicine in relation to these perilous states would be analogous to that

which, in another department of his work, the practitioner holds towards the errors of diet, the bad habits, and the insanitary life and surroundings of his patient, which are likely to play parts in the causation of disease. If we would warn a man whom we saw drinking himself into disease or living over a cesspool that he must make certain changes if he would preserve his health, equally ought we to be in a position to warn the man who is in a bad mental state that he is making trouble for himself in the future, and advise him how to mend his intellectual ways. This surely is well within the province of the practitioner, if it be true—as we all know it is—that mind is brain-function. In a certain and very real sense the physician must be a minister not only to minds diseased but to the "distressed in mind," if he would discharge his whole duty; we will go further and say, if he would discharge his immediate duty as a practitioner of the art of healing adequately and faithfully. What general physiology is to pathology, psychology is, not only to the pathology of mind, but to the pathology of those disorders and diseases which are the results of errors in the management of the mental system. From the dawn of consciousness in the child to the ending or consummation, whichever it be, of the human consciousness in death, the medical adviser ought to be the sympathetic and trusted counsellor. "Who is sufficient for these things?" We reply no one perfectly, but all may help, and if all did help there would be incomparably less of the misery and vice that leads to suicide, with or without insanity, and to a multitude of the most intractable diseases that we have now to deplore.

The psychology of suicide is not a subject to be discussed to any useful purpose in the compass of a single article. Let what has now been said suffice to enforce the need of attention to this momentous matter. Hereafter we will try to set forth the leading facts, challenging the consideration of the profession in relation to suicide from fear, suicide from remorse, and suicide from exhaustion.

As already observed in a previous issue, Mr. HUTCHINSON'S recent Lettsomian Lectures contain many points of much practical importance to all who are engaged in the treatment of venereal diseases. Having noticed his views on dualism, phagedæna, and mercurial treatment, we now pass on to his remarks on bubo. He regards scars in the groin as presumptive evidence of syphilis, and believes that it is very exceptional for the typical chancroid to cause no enlargement of the glands at all. These views will not be generally accepted. It is true, as Mr. HUTCHINSON remarks, that our rules of diagnosis have been far too definitely laid down in these matters. But it would be unwise, in the words of the late Dr. LATHAM, "to rebuke the experience of all past times and dictate to the experience of all future," for the past and present history of syphilis shows the revival of many so-called exploded views. That one or more indolent, painless, indurated inguinal glands may occasionally become inflamed and suppurate is a fact of frequent experience, but that it is the exception rather than the rule is equally the experience of most authorities who have had the advantage of large practical observation. On the other hand, the tendency of the typical chancroid is less the cause of enlargement of the glands as of acute inflammation terminating in suppurating bubo. In dealing with the important question as to whether a patient who had once had syphilis was liable to a second attack, Mr. HUTCHINSON considers that RICORD'S law (which held that he was not liable) holds good in reference to a large majority of cases. But he also contends that exceptional cases do occur, and considers them not more frequent than in the case of variola and measles. Passing on to the very important practical point of incubation periods, Mr. HUTCHINSON remarks how strange it is that its length should still remain a moot point. It is less strange when it is borne in mind how difficult it is to obtain accurate data concerning it. By many practitioners it is regarded as a dry theoretical point of little or no practical importance, while the information obtained from patients can only in a small proportion of cases be absolutely trustworthy. Of how great importance this "moot point" may be we have a very happy illustration in the case which the lecturer has given, where his patient, a young gentleman, was so unfortunate as to contract both gonorrhœa and syphilis, as the result of being once led astray. The gonorrhœa was soon cured, but a chancre made its appearance. The surgeon who treated it, ignoring the possibility of a long period of incubation, misled the patient's uncle, and virtually accused the patient of untruthfulness, because the chancre did not appear till five weeks after the advent of the gonorrhœa. Fortunately Mr. HUTCHINSON was enabled to do the lad an act of justice and to afford real gratification to his uncle and guardian. There can be little doubt that the average period of incubation is, as Mr. HUTCHINSON contends, much longer than is generally supposed, being as much as five or even six weeks, reckoning it as the interval between contagion and the production of an induration which can be diagnosed. It is a fact of great importance in medico-legal cases, as it may go far to prove or disprove a charge of rape or other criminal assault. It is of even greater importance as regards the interval which should elapse between an exposure to contagion and marriage, since every practitioner of experience knows how reckless many men are on this point, and how impossible it appears for them to control their sexual desires even for a few weeks. Moreover, in every case where a patient consults a practitioner for a supposed venereal ailment, the result of impure connexion, the latter will do well to bear in mind this very important diagnostic point, recollecting that, however slight the case may at first appear, it may, after all, turn out to be a case of syphilis.

The subject of recurrent chancres is of great interest, and Mr. HUTCHINSON has given a very lucid description of them, which is well worth reproducing. "Briefly," he says, "it is quite possible and not a very rare occurrence for induration to develop in the retro-coronal fold of the prepuce, which assumes the most exact resemblance to hard chancres, but which are not consequent on any fresh contagion. They occur to those who have had syphilis, and usually but not invariably on the site of former chancres." He would appear to place little value on the presence or absence of induration as a diagnostic point. He regards its presence as proof that there has been no previous attack of syphilis and no application of caustic, but it must be remembered that some of the worst cases of induration are those

in which there has been gross neglect and an absence of all proper treatment. These are the cases which, in Mr. HUTCHINSON's own words, "in size and duration simulate a new growth," going far to show how important a symptom of true syphilis induration is when well marked. As for the condition to which the lecturer has given the term "gonorrhœa-syphilis," it conveys an additional warning of how carefully every case of supposed gonorrhœa should be watched. That the gonorrhœal discharge of a syphilised female should infect a man with syphilis is possible. But that a urethral chancre is often most difficult to distinguish from gonorrhœa is well known, and such being the case it is much more probable that the chancre should escape observation than that there should be no chancre at all.

Of all points noticed by Mr. HUTCHINSON in these recent lectures, none perhaps was more interesting and important than the question as to whether syphilis can be conveyed in vaccination with clear lymph. He evidently considers that this has been conclusively answered in the affirmative by the experiment to which a surgeon recently submitted himself. It has been objected that the lymph might have contained corpuscles, invisible to the naked eye, but visible through the microscope. But whatever may be the true explanation, it is plainly the duty of all vaccinators to ascertain beyond all reasonable doubt that their vaccinifers are not the subjects of syphilis.

In concluding this imperfect notice of these lectures, it is greatly to be desired that all who have the opportunity will furnish the certain classes of facts which Mr. HUTCHINSON regards as still wanting. These are: "Cases in which twins, one or both, suffer from inherited syphilis; they should be followed up through as long a period as possible. Cases in which women acquire syphilis during pregnancy, with especial attention to the question of the freedom of both parents from any former taint; in these cases it is desired to ascertain the effect upon the previously healthy fœtus of syphilis acquired by the mother at different periods of pregnancy. All exceptions, or apparent exceptions, to COLLES' law (that a sucking child cannot infect the nipple of its own mother). All instances of children born alive with indications of syphilis upon them. All cases of pemphigus infantum or of other syphilitic eruptions making their appearance during the first week of life." These, as Mr. HUTCHINSON observes, can only be obtained from those practitioners who are engaged in family practice, who should be rejoiced to aid in so excellent a work as the clearing up of all doubtful points in the diagnosis of such a disease as syphilis. The writings of ACTON, RICORD, DIDAY, BASSERRAU, HENRY LEE, BERKELEY HILL, BUMSTEAD, TAYLOR, and last, but not least, JONATHAN HUTCHINSON, clearly show that, instead of being ostracised from the study and practice of members of the profession, as formerly, the diagnosis, prognosis, and treatment of syphilitic and other venereal diseases form as learned, honourable, and scientific a specialty as any department of medicine or surgery.

THIS is the season of the year when medical men have to face the commercial aspect of their calling, whether they like it or not. During the greater part of the year they follow their arduous pursuits without much reference to being recompensed. The ring of the night-bell rudely disturbs their sleep; the perverseness of disease disarranges their holidays; the tension of individual cases disorders their digestion, possibly their very nerve centres; yet they go on with the satisfaction of men at their post, doing their duty, abating pain and suffering, and in not a few cases adding sensibly to the duration of life and the prosperity and happiness of families. Sometimes the object of their solicitude is the breadwinner of the family, on whom its very subsistence depends; at other times it may be a mere infant of days; but in either case life is at stake, with all its possibilities and relations; and medicine is daily felt to be no holiday calling, but a militant pursuit, a veritable battle with disease from January to December without long vacations, and which, even on Christmas and Midsummer Days admits of very partial suspension. The calling is so absorbing, the objects are so lofty, that medical men are apt to forget that they have to live. The success of their curative efforts is very apt to produce a similar forgetfulness in their patients. The gratitude of patients is often great on their restoration to health, but it is also often evanescent, and health once restored the sensations of recovery and relief are apt to be soon forgotten. Health is regarded as a sort of right, and the agent and instrument by whom it was recovered is allowed to drop out of mind. We will not try to fix the exact number of grateful patients. Once there were ten healed, and only one was found grateful. To do human nature justice, we are disposed to think there would not be nine defaulters now out of ten. But about Christmas-time, for one reason or another, medical men have to prefer their charges and to make pecuniary claims on those whom they have attended. The duty cannot be shirked. They have, as we have said, to live, and the divine character of their profession in no way exempts them from the demands of those whose callings are more prosaic, and who minister to them and to their children. We do not often allude to the commercial aspects of medicine. Perhaps we should do so more frequently were it only to prevent disappointment in many who seem to think it a profession in which failure is almost impossible and living easy. Our object now is rather to remind patients of the nature of the service which they are asked in the medical man's bill to recompense, and which, to do them justice, a large number discharge with grace and generosity. The more intelligent the conception of the nature of medical service, the more cheerfully and the more promptly will the bill be discharged. The days are gone by when intelligent men think of the medical man as the mere master of so many huge bottles, each good for a given symptom or complaint, and to be dispensed by rule of thumb. But even now all men are not quick to perceive in what true medical service consists. In the hope of helping both them and medical men themselves to a true estimate of the value of medical service, we seek here now to magnify it. It may involve no giving of medicine at all. A mere hint to a wise man about the direction in which his health lies, or from which the subtle risk of a breakdown in his health or that of one of his family may be looked for, may be worth all the money that his doctor's bill comes to for all the years of his life. The best medical service is that which averts disease,

or puts the patient in the way of avoiding it for the future. Add to such deep service as this the relief of actual suffering, the limitation of infections, the tiding over of grave crises, the timely and wise selection of appropriate remedies, the performance of surgical operations more or less serious, and medical service becomes precious, and the cheerfulness and generosity with which it is paid for will be limited only by either the intelligence or the means of the patient. It is with such views that medical accounts should be made out, and with such views that they should be discharged. Our opinion is often asked as to the scale and sum of charges proper to be made in certain cases. It is of far more moment to make clear to the public the profound and far-reaching nature of medical service and the arduous character of the medical calling. The medical profession has never been wanting in mercy, in readiness to help those who "cannot recompense" it; but this very quality of mercy has been abused, and the profession and the public will only gain by a stern determination to raise the public estimate of the value of medical service.

No better subject for discussion at a Clinical Society could be chosen than that of Meningitis. The ignorance that still prevails about it, the variety of its clinical course, the difficulties of diagnosis and prognosis, the questions of its etiology and natural history, all combine to render the subject as fascinating to the clinical physician as it is monotonous to the morbid anatomist. Its modes of onset are multiform, and its further course and ultimate issue are as uncertain as any process can possibly be. Mere languor and lassitude, unexplained pyrexia or constipation, vomiting without other symptoms, fits of all kinds, hemiplegia, disturbance of pulse or breathing, and vaso-motor disorders may mark the onset in different cases. At the discussion on Dr. GOODHART'S able and suggestive paper at the last meeting of the Clinical Society many most interesting points were raised. Is otitis interna or media a cause, consequence, or mere concomitant of meningitis? Who can tell? Dr. BRISTOWE stated his belief, in which we concur, that in the majority of cases the aural disease should be regarded as a mere companion of the meningeal inflammation. With regard to tubercular meningitis, this opinion is probably most true; it may be less true of the simple form of meningitis. And this leads up to the first great distinction to be drawn in discussing this disease. It is of the first importance, as Drs. WEST and BRISTOWE insisted, to distinguish between the tubercular and the simple forms of meningitis. Then, bearing this in mind, we ought to consider the difficulties in diagnosis of the two diseases. On the whole, we are disposed to think that tubercular meningitis is far more difficult of diagnosis than the simple variety. A still further distinction is necessary between the diagnosis of tubercular meningitis in the very young and the same disease occurring a little later, before and after the second dentition. Tubercular meningitis may occur at all ages, and cases are on record of its appearance before the first tooth has been "cut." At these very early periods of life the diagnosis is of the most difficult nature, and fatal cases of obscure disease exhibiting most if not all the symptoms of meningitis, have been found post mortem to be destitute of the slightest sign of meningeal affection. To put the case more explicitly:—retraction of the head, convulsions, pyrexia, irregular and rapid pulse, disordered breathing, vaso-motor disturbances, and even squint, have been observed as chief symptoms, when the necropsy has failed to reveal any disease in the cephalic cavity. We should place a mark against optic neuritis, and regard its certain presence or that of choroidal tubercle as the most infallible proof—taken with the other symptoms and clinical course—of the existence of meningitis—of course tubercular if the choroidal sign be present.

On other points raised in the discussion we think there should be more unanimity of opinion than now appears to exist. That simple meningitis may recover seems to us to rest on evidence of the most irrefutable character. That tubercular meningitis may cease to give rise to symptoms must, we opine, be also regarded as beyond doubt. At least it is difficult to explain what happens in several cases unless we accept this doctrine. Cases have occurred in which competent observers have watched the progress of symptoms affording the strongest presumption of the presence of tubercular meningitis, which have progressed favourably for a long time, and then the illness has reappeared with its usual aspect and fatal termination. In one such case that has come under our observation a slowly recovering hemiplegia remained with a child for several months before the appearance of the final fatal illness. A necropsy revealed the signs of an old cerebral softening in the neighbourhood of the opposite internal capsule, together with a mixture of tough and soft inflammatory tubercular products, the respective results of the old and recent morbid processes—a geological kind of evidence that seems to be of a conclusive nature.

A further point is the mode of origin of some cases of simple meningitis. Dr. SYDNEY PHILLIPS spoke of a case of purulent cerebro-spinal meningitis supervening on measles, in which a necropsy proved the accuracy of the diagnosis, and failed to detect any otitis. Dr. WEST stated as within his own experience that other eruptive fevers than measles may be the starting-point of meningitis of a simple kind. One of the most interesting cases that Dr. GOODHART related seemed to show that septic poisoning may also be a cause of simple meningitis, and it is to be regretted that a necropsy was not obtained in his case, which otherwise had every appearance of supporting his opinion; on this etiological point, also, Dr. WEST seemed to entertain no doubt. There was one statement that Dr. WEST ventured to make, on which, if we understood him aright, we should like to join issue. It was to the effect that when tubercular meningitis was in action the temperature never rose above 101° or 102°. As to this we have not the slightest doubt, founded on clinical with subsequent post-mortem evidence, that tubercular meningitis may be accompanied by as high a temperature as any other disease, cerebral, thoracic, or abdominal.

MR. VICTOR HORSLEY will read a paper on Brain Surgery in the Stone Age at a meeting of the Medical Society of University College, to be held on Wednesday, March 3rd, at 8 P.M. The meeting will be held in the Botanical Theatre of the College. Any member of the profession will be admitted on showing his visiting card.

Annotations.

"Ne quid nimis."

MEDICAL MEN AND INFECTIOUS DISEASES.

IT would be very pleasant to believe with Dr. Mantle that some immunity from infectious disease is conferred upon medical men by the very fact of their being constantly exposed to the different infections, and that Dr. Ogle's statistics confirm this view. We are sorry to say that we cannot take this view of Dr. Ogle's statistics, or of the facts known too well to medical men before they were published. Dr. Ogle shows, we may remind our readers, that the death-rate of medical men aged over twenty years from scarlet fever is nearly four times the average rate of other men of the same age, from typhus more than twice, and from diphtheria nearly four times. But the liability of medical men to infection is no new discovery. If anyone doubts this, let him look into the facts concerning typhus and relapsing fever, two intensely infectious diseases, contained in Murchison's book on Fevers, and he will be soon disabused. We can only quote one or two o these facts. Dr. Tweedie, writing in 1833 of typhus, said: "Every physician, with one exception (the late Dr. Bateman), who has been connected with the London Fever Hospital has been attacked with fever during his attendance, and three out of eight physicians have died. The resident medical officers, matrons, porters, and nurses, have, one and all, invariably been the subjects of fever." In 1837 Dr. Cowan thus wrote concerning the typhus then prevailing in Glasgow: "All the gentlemen who have acted as clerks in the Fever Hospital for many years past have been attacked with fever, unless they had it previously to their election." Dr. Murchison had two attacks of typhus at an interval of ten years. We must not encourage the idea that we have any charm against infections; but we must do all we can to preserve the purity of the atmosphere of sick rooms by cleanliness, ventilation, and disinfection.

DIPHTHERIA AT AYLESBURY.

THE vale of Aylesbury, in Buckinghamshire, is a rich grazing district, producing large quantities of milk for human consumption. As it is now an established fact that zymotic disease may be spread by milk which has become contaminated with the poison, it is a matter of great moment when a town, situated as Aylesbury is in a grazing vale, becomes the centre of an outbreak of diphtheria. There is to be a Government inquiry into the cause of this outbreak, the result of which will be of more than usual interest. The sanitary authorities of Aylesbury have given great consideration to the drainage of the town, and with a view of perfecting their system have adopted a modern process of dealing with their sewage at the outfall. It must therefore be disappointing and somewhat disheartening that the town should now be visited by such an outbreak of diphtheria as to necessitate a Government inquiry into the cause. The registration district of Aylesbury has the highest death-rate of any registration district of the county of Buckinghamshire. It has not, however, in the past had a high death-rate from diphtheria; in fact, the death-rate from this disease would compare favourably with that of other registration districts in the same county. It becomes, then, a subject of great interest as to what can be the cause of this development of diphtheria in a locality which has undergone great sanitary improvements. We have frequently pointed out that diphtheria appears to arise independently of sewerage defects, though it is always much aggravated by emanations from sewage. The town of Aylesbury is situated on an eminence above the rich valley which stretches for miles below it, and the soil of which consists of rich black mould, long noted for its fertility. There is more or less of an impervious subsoil which favours the retention of moisture and vegetable decomposition, both of which are conducive to the development of diphtheria.

THE MEDICAL OFFICER OF HEALTH FOR BRISTOL.

MR. DAVID DAVIES, the well-known medical officer of health for Bristol, has been "interviewed," and if impending retirement from the arduous duties of a prominent and honoured career, in which the interests of others have always taken the first place, can justify the process, we cannot complain that he should have been subjected to it. One of the first officers of health appointed in England, Mr. Davies commenced his duties by facing epidemics of typhus and of cholera, the mortality from which was such that the task could only be undertaken with an exceptional amount of personal risk; and though at first the appointment was temporary and provisional, yet it soon became evident that services such as had been rendered to Bristol during the period for which he had been in office could not be dispensed with under the circumstances in which the city found itself. Mr. Davies' student career had been a distinguished one; he had received from the hands of Prince Albert the Cheselden Medal; and he brought to bear upon the official duties which were cast upon him, at the age of twenty-eight, all the energy which he had displayed during his early studies. To tell the record of his services would occupy a volume, for all the great improvements in the sanitary and social circumstances of Bristol which have been going on since 1849 are more or less identified with his name; and when he looks back at the conditions under which the inhabitants of that city were living, as regards such important matters as dwelling-accommodation, water-supply, sewerage and drainage, and prevalence of uncontrolled infection, at the commencement of his career, and compares them with what they now are, he may well, for the moment, ignore the further improvements which he would wish to advocate and press forward, and find satisfaction in the fact that he has more than performed his duty to himself and to his constituency. We are glad to learn that Mr. Davies' retirement takes place at a time when he may expect to spend many years in the enjoyment of well-earned rest and recreation, and we are certain that he will take with him the best wishes of the inhabitants of Bristol and of the many members of the profession who know him either personally or by repute.

THE RECENT CASES OF ACCIDENTAL POISONING.

LAST week we commented on the danger which recent events have too abundantly proved to arise from the want of a distinguishing mark on poisons or mixtures containing poison. The case in which a lad died from the effects of carbolic acid, administered to him in mistake for medicine, was then mentioned. The nurse's error in this case was very deplorable, and it was due without doubt to her using an ordinary bottle for containing the disinfectant. In the face of this fact it is somewhat remarkable that carbolic acid is not one of those substances to which the law requires that the sign of caution should be affixed. Chemists almost invariably mark it as a poison, as also do chemical manufacturers, but such care is optional. The crude stuff is sold by oilmen to any buyer without precaution, and but for its odour might pass for beer, especially when kept in a jug or pint bottle. At a late meeting of the Pharmaceutical Society it was proposed to advise the Privy Council that certain drugs—amongst them carbolic acid—should be added to the list of legally recognised poisons. It appeared, however, that this

substance had been purposely excluded from the former list because of its common use in outlying rural districts. Convenience, possibly, may still maintain this exemption; but if so, we may at least hope that some sign of danger may be affixed to a commodity which has not in a few cases been a means of suicide or accidental death. A more serious misfortune of closely similar causation was the poisoning of two persons a fortnight ago with strychnine, near the Old Kent-road. Here also the appropriate label was wanting. Not only so, but the strychnia solution had been placed in a bottle supposed to contain a harmless flavouring agent. It is worthy of note that the medical man who has been the unhappy cause of this double calamity has behaved with commendable frankness in the matter, by taking the whole responsibility upon himself and exonerating from all blame the practitioner associated with him. No doubt his explanation, that the strychnine had been placed for temporary convenience in an empty bottle labeled otherwise and forgotten, is the true one. The verdict of the coroner's jury, implying a censure of extreme carelessness, is not unduly severe in the circumstances. The alleged intention of taking legal action against the defaulting practitioner, however natural to one of the bereaved husbands, is, to our mind, a useless and painful addition to a sufficiently painful case. These various accidents occurring so simply cannot fail to remind all concerned that care as much as skill is essential to treatment. The latter of them also recalls a trusty method in pharmacy which allows the storage of poisons in small quantities only, and in a cabinet devoted to themselves.

THE JURYMEN WOULD HAVE THEIR WAY.

ON Feb. 15th Mr. William Carter, coroner for the Lambeth division of Surrey, held an inquest at the Crown Tavern, Lambeth-walk, Albert Embankment, touching the death of a newly-born male child, who was found dead under an arch in William-street, Lambeth. According to the evidence of the police, the police surgeon asserted that the death had occurred quite recently. There was no evidence as to identity. Under these circumstances the coroner advised the jury to return a verdict of "Found dead," and not to go further into the investigation as to the cause of death. Upon this, a juryman, who appears to have held strong convictions as to the frequency and heinousness of child murder and, what is more, to have had the courage to act upon them, plainly intimated to the coroner that he would not subscribe the inquiry form unless the doctor was called to assist them in arriving at some sort of decision as to how the death had been brought about. The coroner, put upon his mettle, at once threatened the recalcitrant juryman with imprisonment for contempt of court; the threat, however, was not carried out. Had it been, one of Her Majesty's prisons would undoubtedly have had its resources somewhat taxed, for the foreman of the jury and several other of his coadjutors were not slow to inform the coroner of their determination to exercise their prerogative of refusing to find a verdict upon what might seem to them insufficient testimony. Ultimately the inquiry was adjourned in order that a post-mortem examination might be held. We yield to no one in insisting upon the necessity of the majesty of the law being upheld. When jurymen are legally in the wrong they deserve whatever punishment their offence entails. In this case, however, we maintain that the real right was on their side. The very purpose of an inquest is to determine "how, when, and by what means" the deceased came by his or her death. No doubt the coroner was correct in saying that the superior courts had decided "that unless independent legal proof of identity and of a child having had a separate existence was forthcoming, no criminal charge could be sustained." Proof of live birth, however, is presumptive evidence of a separate existence, and, if only for negative reasons, it is obviously desirable that the former fact should be settled definitely. Furthermore, we cannot imagine that the coroner was so purblind as to believe that proof of live birth might not form an important and necessary link in the chain of circumstantial evidence which it was the duty of someone to forge. If, as has been reported, the chief argument against the demand for a post-mortem examination was that the magistrates objected to "unnecessary expense" being incurred, we can only hope that other jurymen will stand upon their rights, as Mr. Jordan did, and decline to "act as dummies" when the law enjoins upon them the specific performance of a highly responsible duty. Where there is any reasonable doubt as to the cause of death, it is of paramount importance that a medical man should be consulted and examined on oath. The *ipse dixit* of a third person is not worth the paper on which it is recorded.

OVER-PRESSURE AT WORKHOUSES.

THE death which occurred last week at the St. George's Workhouse, Borough, demonstrates clearly one of the weak points of our Poor-law administration—viz., the very inadequate provision made for the medical attendance on the sick poor. Not only are the medical officers at our workhouses and sick asylums tasked to their utmost with the care of an overwhelming multitude of sick persons, but they have also to decide, in the case of every admission to the workhouse, as to the actual state of the applicant, and whether the case is to be retained in the workhouse or sent on to the infirmary. Among the cases daily seeking relief there are always a number that stand on the borderland of acute and chronic disease—patients suffering, say, from long-standing disease of the nervous system, heart disease, chronic bronchitis, &c., aggravated by want and exposure, but who only require rest, warmth, and food, to be able to struggle on again; and the more acute cases that demand prompt medical assistance and skilful nursing. Now, to decide at once upon the exact requirements of a case is, even in ordinary times, often a matter of some difficulty, but still more so is it in a season like the present, when the tide of sickness and distress is setting full in the direction of the workhouse and infirmary; whilst, no doubt, a desire exists, now that the wards of the infirmaries are overflowing, to deal with as many as possible of the less urgent cases at the workhouse, instead of forwarding them to the already overcrowded sick asylums. Another difficulty is that the relieving officer, when the pressure is great, may happen to send a sick person direct into the workhouse without bringing the case first under the notice of the medical officer, when it may escape his observation for a day or so, unless specially reported to him. In the present instance there seems to be some doubt whether the patient was seen by the doctor on admission, or whether he was passed into the house without the doctor's cognizance; but there can be no question that the case was one which ought to have been sent at once to the sick infirmary. The blame, however, does not rest, we think, with the officials, but with the system. At the time when the new regulations for the medical attendance of the sick poor at the infirmaries and workhouses were introduced, we pointed out how inadequate, as regards numbers, was the staff allotted to perform the very onerous and responsible duties required, and we then predicted that mishaps would be likely to occur. That they have not done so to a greater extent has hitherto been due to the self-devotion and energy with which the medical staff of these institutions have performed their duties, and to the fact that till recently the pressure, though great, has not been overwhelming. Now

that, with the severe and prolonged cold and the prevailing distress, sickness and suffering have risen to almost unmanageable heights, we must regard the present lamentable incident, not as a subject for the censure of individuals, but as showing the necessity for adequately enlarging the staff at these institutions. This could be most readily done by the appointment of clinical assistants, selected from the senior students of the metropolitan hospitals; it would be useful work for them, a boon to the poor, and a sensible relief to our overworked Poor-law medical officers.

BLINDNESS IN RUSSIA.

AT the first Congress of Russian Doctors, which was held immediately after Christmas (our Jan. 6th), many important papers were read, followed by discussions of considerable interest, some of the most eminent members of the profession from the different provinces and universities of the empire taking part in them. A very striking contribution to the study of social and sanitary questions was afforded by a paper by Dr. A. T. Skrebitski on the "Distribution and Statistics of Blindness in Russia." The data employed were chiefly those collected by the military authorities who have to examine young men as they become liable to service in the army. Taking the total for the five years 1879 to 1883, the number examined was 1,388,761, of whom 13,686, or almost 1 per cent., were blind of one or both eyes. In certain districts the proportion was much higher than the average, and some of the largest, or rather most populous, provinces seem to have presented the greater proportion of blind; thus in that of Kieff, which sent up almost the largest number of recruits—namely, 43,118,—no less than 660, or 1 in every 65, were found to be blind of one or both eyes. The smallest proportion of blind was found in Archangel, where it was 1 in 390; but even this is far above the proportion in other European countries. To make the comparison with the statistics of other countries it is necessary to subtract the number of those blind in one eye, which in Russia is found to be only a fifth of the total blind; thus, we may consider that four-fifths of the 13,686 recruits returned as blind were blind in both eyes, so that the ratio of totally blind is about 1 to 125. The ratio in England and Ireland is 1 to 1015, and that in several other European countries is still lower, being 1 to 1406 in Saxony, and 1 to 1429 in Denmark. Dr. Skrebitski's paper has attracted a considerable amount of attention from the lay press, the *Novosti* remarking, "We have surpassed Europe not only in mental but in physical blindness." To any foreigner, however, who reads the Russian medical journals, the valuable original communications with which they literally teem would appear to indicate the reverse of "blindness," in the Russian scientific world at all events.

VESTRY VITAL STATISTICS.

THERE are in this country two systems of official death-rates, that of the central government and that of the local government, for which the Registrar-General and medical officers of health respectively are responsible. There are both advantages and disadvantages in this state of things. The statistics of the Registrar-General have the advantage of impartiality and uniformity, and, as a rule, should be used for comparisons. The medical officer of health, on the other hand, has the opportunities of correcting errors in registration, and such as arise from immigrants dying of infectious diseases immediately after arrival in the district. Hence, an energetic and accomplished medical officer provides statistics which correspond more closely with the real facts than do those that are issued from Somerset House. Although, however, there are many medical officers to whom the public is more indebted than it is commonly willing to admit, and the number of such is fast increasing, there are, here and there, to be found men who entered the public health service as it were by accident, and who, owing to lack of energy and interest or to arithmetical weakness, do not improve the statistics that they take in hand, and who too readily yield to the temptation to make the health of their district appear better than it is, by sedulously rejecting all deaths of non-parishoners in institutions, without taking any account of the deaths of parishioners in hospitals &c. outside the area. The Registrar-General furnishes four times a year corrected returns for London, in which all the deaths in public institutions are assigned to the sanitary areas to which they properly belong. It would be a good thing if London medical officers could be instructed by the central authority to give these official figures in their reports, and, where in any case they thought fit to vary the figures, to give such figures separately, together with the reasons for such variations. If this were the rule, it would be impossible for such a misleading report to be issued as that for Mile-end Old Town, 1884-85. The figures given in this report are not only most meagre, but are hopelessly at variance with those of the Registrar-General. Thus, the medical officer of health gives the deaths from the "seven principal infectious diseases" as follows: small-pox 20, measles 9, scarlet fever 56, diphtheria 12, whooping-cough 40, enteric fever 0, cholera 3—total 140. From this he deduces a zymotic death-rate of 1·2 per 1000, as against 3·2 for London. An examination of the Registrar-General's returns for the same period shows quite different figures—viz.: small-pox 27, measles 22, scarlet fever 88, diphtheria 12, whooping-cough 40, enteric fever 24, diarrhœa 117—total 350, which gives a zymotic rate of 3·2, or the same as that for London. But if correction be made for institution deaths, no fewer than 51 zymotic deaths have to be added, which bring the rate up to 3·6, or exactly three times the low rate given in the report of the medical officer to the vestry.

ACCURACY IN DISPENSING MEDICINES.

IT is not very satisfactory to learn that errors in quantity are not uncommon in dispensing medical prescriptions. Such, nevertheless, is the conclusion arrived at in a report on this subject which we have recently examined. This report, it is true, does not treat of an extensive field of research, but its data have been carefully and impartially studied within their limited area. Most of the prescriptions with which this paper deals were of a comparatively harmless nature, while in the case of those containing poisons the error in dispensing was more often on the side of safety than otherwise and was never a dangerous one. Occasionally, however, the amount of the active ingredient was, from a medical point of view, somewhat seriously in excess of the quantity prescribed. So far as the evidence goes, the work of chemists proper, though subjected to fuller investigation than that of other practising pharmacists represented by co-operative stores and drug companies, has clearly the advantage over the latter. Open surgeries have not received such close attention, but in one of these there occurred a very gross error of deficiency with respect to a drug in common use and not ordinarily poisonous. Such inexactitude, when it erred by falling short of the due total, may not have been quite unintentional. We have known cautious dispensers who, in dealing with strong poisons, acted on the principle of the Roman lictors, and perhaps wisely abated a trifle of the full amount. The deficits above stated were, however, in some cases greater than caution required. No fault could be found in the drugs analysed. The quantities alone were at fault. Yet it is improbable that among the chemists or store-salesmen this was due to any grave defect in weights or measures which had escaped the customary inspection. Nor do we see

how monetary considerations, the drugs being cheap, could account for the variations in dose. The errors in quantity were probably due to some extent to the fact that the eye, unaided by a fixed scale, had been too confidently relied upon. We do not believe that chemists or others are, as a rule, given to measure thus roughly even simple ingredients, far less poisons; but it is manifest that rule must be carefully observed in matters like these, where even slight inaccuracies, though perhaps not very hurtful, are in all ways unadvisable. The want of poison labels and appropriate poison bottles is mentioned in connexion with these quantitative faults. For this offence the Poisons Act itself is, by its laxity, largely accountable, and the remedy therefore can only come by fresh legislation. For the inaccuracy law might perhaps do something; but there is a danger that, if too rigorously applied, it might only forge a useless and irritating fetter for a trade not usually careless of its responsibilities.

SLIPPERY ROADS.

"A LARGE amount of equine suffering is annually saved by the sprinkling of sand and gravel in the streets of London. The Commission of Sewers expend about £10,000 a year for this purpose." This paragraph, which appeared in a contemporary last week, is, we fear, likely to create the false impression that all our local authorities are doing their best to minimise "equine suffering." We are sorry to have to bear witness that this is not the case throughout the metropolis. From the allusion to the Commission of Sewers it is probable that the words "the City" should have been substituted for "London." The city authorities deserve credit for the efforts they make to save horses from suffering. Would that we could say as much for the West-end. One of our main thoroughfares the other evening presented a spectacle calculated to cause much distress to anyone who regards a horse as something more than a mere living locomotive. A slight frost had made the surface of the wood-paving slippery as ice, but nothing had been done to give the horses a foothold. True that now and then in the centre of the road might be seen a tantalising mound of sand obviously intended for this purpose, but most certainly not so employed. The life of a London cab-horse is by no means an enviable one. Surely the animal might be spared utterly unnecessary suffering. Such a remark from a cabman as "Would you mind getting out here, Sir? My mare is a capital good one, but she can't face this," does not seem to warrant the self-congratulatory nature of the paragraph we have quoted.

MEXICAN MEDICAL SCHOOLS.

THE not very famous medical school of Puebla in Mexico has ceased to exist, because its professors found that without government assistance, which was denied them, they could not continue to carry on the medical education of their students "with dignity," many essentials for such education requiring funds to an extent which was not at their disposal. So far so good; all right-minded persons will agree that the Puebla professors were right in their determination not to carry on a school when they could not do so in a manner worthy of the noble calling of medicine. It seems, however, according to the editor of a Mexican contemporary, *La Voz de Hippocrates*, that there still exist a number of so-called medical schools in the republic, as those of Celaya, Toluca, Tlaxcala, Orizaba, Jalapa, and Vera Cruz, where the whole staff is represented by a single individual, who unites in himself the appointments of director, examiner, chief of clinic and tutor, and where diplomas are dispensed with so unsparing a hand that quacks with the title of Doctor are disseminated over the country, infesting "even the capital, where they practise a profession of which they are absolutely ignorant." These medical schools, as represented by their respective functionaries, have probably but little sense of dignity, except possibly that which may attach to the possession of the almighty dollar, so that it is hopeless to look forward to their voluntarily following the example of the staff at Puebla. Surely, however, the government of the republic might see its way to giving them a broad hint, or something stronger if necessary, about the propriety of their systems of medical *education* (?)

LECTURES TO HOSPITAL NURSES.

ALTHOUGH we hold, and have expressed the opinion, that it is undesirable for those whose profession it is to nurse the sick and needy to acquire a mere smattering of medical and surgical knowledge for the purpose of applying it without proper direction, we are quite ready to admit that seeking good sound instruction at the hands of hospital physicians and surgeons is worthy of encouragement. It is not so much perhaps what a nurse should do as what she should not do in the exercise of her vocation which requires to be instilled into her mind. Quick at perception, though hasty in judgment—which, however, is often intuitively correct,—and possessed of that gentleness of manner which has always been the admiration of both doctor and patient, it behoves a woman to acquire the broad principles which underlie the perfection of nursing in practice. Let us take, for example, the case of a patient insensible from an attack of apoplexy, or faint unto death from loss of blood owing to a ruptured varicosed vein. A nurse may possibly, in the absence of a medical man, be the first to be called upon to use discretion as to what is best to be done in the face of impending death; and that being so, we imagine no one will gainsay the advantage of such persons being possessed of so much anatomical and physiological knowledge as will not only suggest the proper course to be pursued, but will supply the *rationale* of the act. If a nurse has learned that the valves of dilated veins may be rendered functionless, so that the blood can under certain conditions—rupture for example—flow in either direction, she will be something more than a mere machine: she will have interest in her work, and interest begets efficiency. So, too, if she understands that any mental or physical excitement increases the frequency, and usually also the force, of the heart's beat, and that such increased action tends to expel more blood from a ruptured cerebral vessel, she will be doubly careful to avoid needless moving of the patient. For these reasons we hail with pleasure the information that in several of our London hospitals it has become an established usage for the authorities to organise, and the staff to carry out, a course of professional lectures to the female nursing staff. The undertaking has our hearty sympathy. At the same time we would express our opinion that it be an instruction to the audience that the scientific facts communicated to them are not to enable them to supplant the medical attendant, but to show them how they can be best subservient to him, and so most helpful to the patient.

THE VACANT CORONERSHIP IN BUCKS.

THE sudden death of Mr. Robert De'Ath, as announced in our last week's issue, has rendered vacant the office of Coroner for the Winslow Division of the County of Bucks. His son, Mr. George H. De'Ath, L.R.C.P.Lond., M.R.C.S.Eng., is a candidate for the post, and is to be opposed by a local solicitor. It is hoped and believed that the personal merits and professional attainments of Mr. De'Ath will secure his succession to the important office of coroner, for which his medical education and training eminently qualify him. The election rests with the freeholders of the county.

THE COMPLAINT AGAINST A HOSPITAL.

AT an inquest held at St. Thomas's Hospital last week, the jury appended to their verdict of accidental death the following rider:—"We are of opinion that there was great want of attention on the part of some of the officials at the hospital in not admitting the deceased on the Monday, and in keeping him six hours on the following day before attending to him." At first sight this appears a serious accusation against the staff of the hospital, but on inquiry we find that there is no reason for the censure. The patient first applied for relief two days after a fall in the street whilst drunk. He complained of headache; there was a small superficial scalp wound on the back of the head; no inequality of the pupils, no elevation of temperature, or other sign of serious injury to the head. An aperient draught was administered, and he was told to apply for admission next day if unrelieved. He applied with other patients next morning, and was admitted by the resident assistant-surgeon before twelve o'clock. He was then quite sensible, and in fact continued so for two or three days afterwards. As there was doubt as to the nature of the case, and no indications for immediate treatment existed, he was left until the surgeon visited the ward in the afternoon. The house-surgeon, who gave evidence at the inquest, was dismissed by the coroner, and no complaint against the hospital was brought under his notice. The inquest was held in a room in the hospital (by the kindness of the authorities), and no one was asked to reply to the charges made, the first intimation of which obtained by the hospital authorities being the publication of the proceedings in the daily papers. This is not the usual course adopted by juries, and it is not right that the staff of a hospital should be subjected to censure without being permitted to reply, or to protest, until the chance of effectual protest has passed.

POLLUTION OF THE LEA.

A FURTHER public meeting on this subject was held at the Hackney Town Hall on Monday last, when, on the motion of the Attorney-General, a resolution was unanimously passed expressing approval of the action of the Hackney District Board of Works in promoting the River Lea Purification Bill. Mr. Russell stated that after consultation with Mr. Gladstone and the President of the Local Government Board he should move for a committee to inquire into the question of the pollution of the Lea, without going into the larger question of river pollution generally. He believed that the easiest remedy would be for the Tottenham sewage effluent to be received into the sewer at Springhill, and thence into the sewer at Old Ford. But the latter is the property of the Metropolitan Board of Works, and it is evident that if this course be forced upon this Board by Parliament it will have to consider similar claims from other extra metropolitan districts. It is, however, so obviously the solution of the difficulty that we cannot but wish the Bill success.

THE REACTION OF LIVING NERVE TISSUE.

THE reasons why some drugs act upon one part of the nervous system more than on another have never been satisfactorily explained. Ehrlich has endeavoured to ascertain why it is that some staining reagents colour nerve fibres and others do not. He thinks the variation in alkalinity of different parts of nervous tissues and modifications in the state of impregnation with oxygen are two factors that regulate the absorption of foreign substances by nervous tissues. The degree of alkalinity and the quantity of stored intra-molecular oxygen depend no doubt upon the amount of work that the nervous tissue has just previously performed; probably the nervous structures are most alkaline, and contain the largest store of oxygen after a period of repose. Ehrlich suggests that such considerations may have a great importance in the study of the diverse actions of alkaloids.

ANOTHER FATAL FOOTBALL ACCIDENT.

WE regret to have to record yet another death from football. Thomas Radford, aged twenty-five, collier, of Skegby, Notts, died on Tuesday last from the effects of injuries received while playing at football. The deceased, who was a well-known player, was engaged as substitute with a Sutton team in a match against the Nottingham Castle Rovers. During the game it is stated that he was kicked in the abdomen by another player, and although at once attended to by a medical man, his injuries terminated fatally on Tuesday. This is the seventh fatal accident at football we have recorded this season.

CRYPTOMAINES.

EDIBLE mushrooms may under certain circumstances develop highly poisonous principles. On this supposition may be explained the occurrence of accidents from ingestion of the ordinary salutary fungi. These principles have varying degrees of poisonousness. Those cryptomaines that are extracted by chloroform appear to possess the greatest toxic power; the ethereal extracts come next; then follow the resinous parts and the amylic alcohol alkaloids. The chloroform cryptomaine and the resinous parts alone possess convulsant properties. Such are the conclusions of M. Houdé.

THE NEW BUILDING OF THE LONDON COLLEGES OF PHYSICIANS AND SURGEONS.

HER MAJESTY the QUEEN has graciously consented to lay, on March 24th, the foundation stone of the building to be erected conjointly by the Colleges of Physicians and Surgeons on the Thames Embankment. We congratulate the Royal Colleges on the signal honour thus conferred on them, and, through them, on "the republic of medicine," by Her Most Gracious Majesty.

HESLOP MEMORIAL.

A MARBLE bust of the late Dr. Heslop has just been placed in the library of Mason College, Birmingham, by the professors and students, in testimony of their gratitude for his truly princely and enlightened liberality to their *alma mater*. The sculptor, Mr. W. J. Williamson, of Esher, is to be congratulated. An admirable work of art, the bust is, if possible, still more remarkable and satisfactory as a perfect likeness of a typically fine head.

FIVE CHILDREN AT A BIRTH.

DR. V. TEYXEIRA reports in the *Gazzetta degli Ospitali* (21st inst.) that a woman in the seventh month of pregnancy was delivered of five living children—two females and three males. Three had died, and two seemed in a hopeless state at the date of report. The mother was progressing fairly.

THE second session of the French Surgical Congress will be held in Paris from the 18th to the 24th of October in the present year. The opening meeting will take place in the large theatre of the École de Médecine. The success which attended the first congress encourages the committee to expect from this second reunion of French surgeons results most favourable to the advance of surgery in that country.

FROM the report of the examination made by Colonel Sir Francis Bolton of the water supplied by the several metropolitan water companies during January, it appears that the Thames water sent out by the Chelsea, West Middlesex, Southwark, and Lambeth Companies contained somewhat less organic matter than in the previous month; whilst the Grand Junction Company's water exhibited a slight increase in this respect, the proportion of organic matter present in all the samples being about the average of what is generally met with in river waters at this season of the year. The water drawn from the Lea and distributed by the New River and East London Companies exhibited a marked improvement as regards organic matter upon the previous month's samples. All the waters were delivered in a clear and bright condition.

ONE of the chief answers to Sir Crichton Browne's charges against the Education Code of this country was that in Germany, where the children were put to a more severe test than here, over-pressure was a thing never thought of. Dr. Roth, however, has now published some statistics which completely refute this argument. According to these figures, 64 per cent. of the scholars "who should work up to graduation are much below the normal standard of health." In Denmark, where a still higher standard of education is insisted on, a Government investigation brings to light the fact that 29 per cent. of the boys and 41 per cent. of the girls suffer from over-pressure.

THE movement which we inaugurated in London two or three years ago on behalf of the female shop assistants has been at length taken up by the Parisians. A committee of ladies in Paris are endeavouring to induce the proprietors of some of the large drapery and mercery establishments to allow seats for their female assistants. Females of mature age and young girls, indifferently, at some of the large shops in that city, have to attend from eight o'clock in the morning to the same hour at night with absolute orders that they are not to sit down whilst at their counters.

THE Port of London Sanitary Committee of the Corporation of London, which has the control of the sanitary and quarantine arrangements of the Thames, from Teddington Lock to the Nore, have, it appears, just made an urgent appeal to the Home Secretary upon the subject of the sewage of London, asking him to use his influence with the Metropolitan Board of Works to induce them to take prompt action in regard to providing a permanent remedy for the existing condition of the river through the outfalls at Barking and Crossness.

THE work of the French medical schools appears to be steadily decreasing. The whole number of diplomas given by six medical faculties in France was 662 for the year 1882-83, 590 for the year 1883-84, and 575 for the year 1884-85. The falling-off is mainly in those granted by the Paris faculty, while the schools at Lyons, Montpellier, and Nancy have shown a slight increase.

"The Human Brain; its Anatomy, Physiology, and Pathology," is to be the subject of three free lectures at Queen's College, Birmingham, on the 17th, 24th, and 31st March, by Professors Bertram Windle and Berry Haycraft, and Mr. E. B. Whitcombe.

A SCIENTIFIC society at Haarlem has offered a gold medal and 400 florins for the best treatise on the researches of M. Pasteur. The works, which may be in English, are to be sent in before April, 1887.

DR. GEORGE JOHNSON, F.R.S., has expressed his desire to be relieved, at the end of the present session, of the active duties of his offices as Professor of Clinical Medicine in King's College and Physician to the Hospital, and the Council of King's College has appointed him Emeritus Professor in the College and Consulting Physician to the Hospital.

AT the meeting of the Academia Médico-Quirúrgica Española on Jan. 12th, Señor Ustariz described a successful case of ligature of the subclavian artery with a catgut ligature prepared with corrosive sublimate for an axillary aneurysm of the size of an orange. The patient left the hospital cured fifteen days after the operation.

IT is reported that proceedings are about to be instituted in Germany against a number of persons styling themselves "Doctor" on the strength of diplomas purchased from America *in absentiâ*. In Berlin alone there are said to be 3400 of these "doctors," either of medicine, philosophy, or law.

WE understand that the annual course of lectures on Medical, Surgical, and Obstetric Nursing has just commenced at St. Mary's Hospital. A lecture is to be given every Tuesday, at 5 P.M. The course is not confined to the nurses of the institution, but is open to ladies generally.

HERR v. GOSSLER, medicinalrath, has announced that from next summer students in Prussian universities must undergo instruction in vaccination, and that especial attention is to be paid to vaccination with animal lymph.

WE regret to have to have to record the death of Mr. J. C. Wordsworth, F.R.C.S., on the 22nd inst., at the age of sixty-three. We hope next week to publish a brief account of the principal events of his professional career.

A FUND has been started in Paris with the object of promoting experimental researches for the cure of tuberculosis. More than 4000 francs have been subscribed. Subscriptions may be sent to M. Masson.

NEWS has been received at Portsmouth of a further outbreak of yellow fever on board H.M.S. *Urgent* at Jamaica, resulting in all in seven deaths, one of the victims being the ship's surgeon.

THE resignation is announced, after twenty-five years' service, of Dr. Baranowski, Professor of Therapeutics and Medical Diagnosis in the University of Warsaw.

DR. DON SALUSTIANO FERNANDEZ DE LA VEGA, Professor of Anatomy, has been appointed Dean of the Medical Faculty of the University of Zaragoza.

INTELLIGENCE has been received of the death of Dr. James Archibald Sidey, surgeon of H.M. Prison, Edinburgh, at the age of sixty-one.

THE fifteenth Congress of the German Surgical Society is to be held in Berlin from the 7th to the 10th of April.

HAMPSTEAD HOME HOSPITAL.—At the fourth annual meeting in connexion with this institution, on the 20th inst., it was stated that the number of patients during the past year was 71. The income amounted to £1093, and the expenditure to £1068. The patients' payments amounted to £592.

VAGINAL HYSTERECTOMY FOR CANCER.

THE October number of the *Bulletins et Mémoires de la Société de Chirurgie de Paris* contains an important communication by Professor Trélat, based upon a case in which he successfully removed the uterus through the vagina of a patient aged thirty-eight, referred to him by Professor Tarnier. Madame B——was the mother of six children, of whom the youngest was four years old. Uterine trouble had existed for some time, when both consultants, at the beginning of June, diagnosed epithelioma in its early stage, involving the whole surface of the neck of the womb, but not deeply. The vaginal mucous membrane was perfectly healthy, and careful examination failed to detect any glandular enlargement. The uterus was mobile, but considerably enlarged; the hysterometer introduced into its cavity reached 9 centim.

M. Trélat considered the case in every respect favourable for operative intervention. The lesions were limited and recent, the uterus very movable, and the operation was desired by the patient and relatives. In weighing the question of supra-vaginal amputation of the cervix and total removal of the organ, the following considerations presented themselves. Amputation of the cervix is, as a rule, considered less serious, but it is a blind operation. When it is performed, it is impossible to say if the pathological limits have been passed, and, if so, how far. It is, on the other hand, certain that the mortality from vaginal hysterectomy has been lately much reduced, and that it is reasonable to assume that the risk of recurrence will be less after total than after partial removal. In this case the operation was performed on July 2nd. For several days the vagina and uterus were washed out with bichloride of mercury solution, and the rectum and bladder were evacuated before the patient was anæsthetised. Sims' speculum having been introduced posteriorly, the cervix was brought down by seizing with forceps the anterior and posterior lips. A semicircular incision having been made anteriorly into the vaginal mucous membrane, the bladder was detached quickly and easily. The finger introduced into the wound separated the peritoneum without penetrating into the peritoneal cavity. Drawing the uterus backwards and the fundus of the bladder forwards, the peritoneum could be seen as a bluish membrane, which was seized with forceps, incised with scissors, and with the fingers freely separated as far as the sides of the uterus. The cervix having then been drawn forwards, the same manœuvre was repeated on its posterior aspect—incision of the mucous membrane, detachment, section, and laceration of the peritoneum as far as the broad ligaments. The speculum having been withdrawn, the uterus was again brought down by continuous and energetic traction. Two fingers introduced posteriorly failed to reach the fundus in consequence of the height of the womb. After considerable difficulty, the right broad ligament was brought into view, tied, and divided. The ligature having slipped, the Fallopian tube and the different vessels were tied separately. A similar procedure was practised on the left side, but proved very tedious. Bleeding had then been arrested, and at the bottom of the wound could be seen the left ovary, an omental fringe, and a coil of small intestine; but nothing protruded through the vagina. This and the bottom of the wound were carefully cleansed, and the lips of the vaginal wound were united by a single suture. In each angle of the wound was placed a drainage-tube as thick as a good-sized writing-quill, penetrating from 2 to 3 centim. into the peritoneal cavity, and projecting beyond the vulva. Around the tubes the vagina was plugged with iodoform gauze, the extremities of the tubes were abundantly surrounded with the same kind of gauze, and the whole covered with a thick layer of cotton-wool as far as the flannel body bandage, also lined with cotton-wool. The patient, still sleeping, was then taken back to bed.

The extirpated uterus was so large as to seem gravid. It weighed 197 grms., was 11 centim. in length, 64 mm. in its greatest breadth, and 45 mm. thick. Each wall was 17 mm. thick. To the naked eye the cervix was manifestly the seat of epithelioma. Section of the uterus on a level with each broad ligament appeared absolutely healthy, and proved so under the microscope. The histological examination was simultaneously conducted in the laboratories of La Charité and of the Collége de France, with identical results. The cervix was occupied throughout its whole extent with a superficial, tesselated, lobular epithelioma. A section through the whole height of the cervix proved that only the lower third of the section was involved. The upper part was absolutely healthy. The great size of the body of the organ was due to simple hypertrophy of the uterine tissue. The broad ligaments were quite healthy.

The patient's progress was most satisfactory through an uneventful and rapid convalescence. In the evening of the day after the operation, the external dressing, soiled with sanguineous discharge through the drainage-tubes, was changed; only the odour of iodoform was perceptible. Urine passed with increasing freedom. Temperature 38·4°; pulse 120. After a good night the patient enjoyed some iced consommé and champagne, and passed gas per anum. The outer dressings were again changed, and the external organs washed with sublimate solution. Temperature 37·8°; pulse 94. The third day after the operation one drainage-tube and the vaginal dressing were removed, the latter being renewed after washing with bichloride solution. The second tube was withdrawn and the same dressing renewed on the fifth day. The day following the bowels responded freely to two castor-oil capsules, and they acted naturally on July 9th (seventh day). The patient was now allowed beefsteak, Bordeaux, and port wine, and all dressing was removed. A little pus was seen on the vaginal tampon of iodoform gauze. The vagina was injected with sublimate solution; as this caused some irritation, it was resolved to use chlorinated water in subsequent injections. The vaginal sutures passed away with the injection on the eighteenth day, and on examining the passage carefully with the speculum on the twenty-first day the cicatrix was visible as a transverse solid line. The patient left her bed comfortably on the twenty-third day, and continued to progress favourably.

In the discussion which followed, Dr. Terrier, after recalling a case, previously communicated to the Society of Surgery, in which he had successfully removed the uterus through the vagina for cancer of the cervix, referred to a second case of similar operation, which proved fatal on the sixth day in consequence of intra-peritoneal hæmorrhage.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Braintree Rural District.—The birth- and death-rates for this district during the past year were 26·2 and 17·8 per 1000 respectively, the so-called zymotic rate being 0·97. Mr. Abbott presses upon his authority the need for means of isolating first attacks of infectious diseases, and refers to experience in connexion with the Doecker huts. A small permanent hospital is, however, far better, for it is not always easy on the spur of the moment to get an available site, and the most valuable moments have often been lost where these temporary structures have been relied upon. If this rural district had expended all that it has paid for temporary hospital work at such places as Terling and Coggeshall on a small brick building, it would be far better off than it is now in this respect. The experience cited below as to the Brentford urban district illustrates our meaning opportunely, and we should advise Mr. Abbott and his authority to consult the plans of small permanent hospitals issued by the Local Government Board last year as a way out of the difficulty. Some defaults of drainage and of water-supply are still in need of a remedy, and in certain localities rain-water storage seems to be the only feasible plan to adopt. With slate-roofs and the rain-water separators which were shown in the International Health Exhibition, and by which the dirt from the first washings of the roof is prevented from passing into the storage tank, rain-water can be often resorted to without the risk of an objectionable deposit at the bottom of the tank which necessitates such frequent cleansings. Much is being done to improve the water-supply where springs are available, and at Bradwell considerable benefit has already resulted.

Brentford Urban District.—The work of connecting the

houses with the new system of sewers, and of abolishing cesspools by filling them up, is steadily continuing in this district, and it has already been effected as regards 2230 out of a total of about 2500 dwellings. In view of complaints as to offensive emanations from the sewer ventilators, the plan of carrying additional shafts to a height above the houses and of securing systematic and frequent flushing has been resorted to, and so far with the prospect of success. During the past year a number of closets have been supplied with cisterns separate from those from which the domestic supply is drawn. This is a most important point, and since it is so easily effected, as by the fitting up of a self-acting preventing and automatic flush cistern just above the closet, it is to be regretted that the improvement is not more generally adopted in all districts. Adverting to what we have so often said as to the drawbacks attaching to temporary infectious hospitals, we would quote what Mr. Williams writes: "No site has yet been found upon which our portable hospital can be erected ..... Should an epidemic arise we should be in a difficulty." We commend our remarks made upon the Braintree rural district to Mr. Williams. Inspection of dwellings and nuisance abatement form important features of the year's work, and the summary given is a satisfactory one. The birth-rate for 1885 was 38·5 per 1000, and the death-rate 16·6 per 1000. The latter compares well with many surrounding districts.

Montrose Sanitary District.—The corrected death-rate for this district during 1885 was 19·2 per 1000, and it was satisfactory in so far as it exhibited a decrease on the previous year, and because it was but little made up of diseases belonging to the infectious group. Uncertified deaths lead to uncertainty in the vital statistics, and with Dr. Laurence we wish some further control could be properly exercised in this matter. The report gives hardly any information as to the conditions under which the people live, as to the remedies necessary to be taken to improve the sanitary circumstances, or as to action taken in this direction during the year. It is rather a statistical than a "health" report.

Watford Urban District.—Diphtheria continues to cling to this otherwise attractive residential town. From 1850 to 1877 it was, according to Dr. Brett, a rare disease in Watford; but since then, although there has been no extensive prevalence of the disease till last year, it has off and on recurred. In 1883 it caused 6 deaths, 5 deaths in 1884, and 29 deaths in 1885; the largest mortality in the latter year taking place in the colder months. All the elementary schools suffered, but, so far as is known, none of the private ones were affected, and no case occurred in the neighbouring London Orphan Asylum, a circumstance worth noticing, because, though not in Watford district, yet this institution is connected with the town system of sewers. Recently Mr. Sweeting made an inspection of this district in connexion with the diphtheria prevalence, and his report to the Local Government Board is awaited in the locality. The system of sewer-ventilation has been credited with much of the mischief, but Dr. Brett is inclined to think that this view is erroneous. There are 169 ventilators mostly opening on to the crown of the road, and many have been found to be useless because they were blocked with road detritus, a result which is clearly due to inadequate inspection on the part of the local authority. Improvements are needed in Watford at the market-place, and by substituting a constant for the intermittent service of a water which is excellent in point of quality. A systematic effort is also needed to improve the courts and alleys in the older part of the town. The deaths for the year were at the rate of 17·3 per 1000. Apart from diphtheria, there was but little sickness and few deaths from any of the infectious fevers.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 6061 births and 4253 deaths were registered during the week ending February 20th. The annual death-rate in these towns, which had been equal to 22·1, 22·2, and 23·1 per 1000 in the preceding three weeks, further rose last week to 24·4. During the first seven weeks of the current quarter the death-rate in these towns averaged 22·9 per 1000, and was 1·9 below the mean rate in the corresponding periods of the ten years 1876-85. The lowest rates in these towns last week were 15·3 in Birkenhead, 16·4 in Leicester, 17·6 in Derby, and 18·1 in Sheffield. The rates in the other towns ranged upwards to 30·0 in Plymouth, 30·7 in Sunderland, 32·7 in Halifax, and 39·1 in Blackburn. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 360, 376, and 405 in the preceding three weeks, further rose last week to 425; they included 197 from whooping-cough, 70 from measles, 43 from diarrhœa, 39 from diphtheria, 33 from "fever" (principally enteric), 31 from scarlet fever, and 3 from small-pox. These zymotic diseases caused the lowest death-rates last week in Preston and Norwich, and the highest rates in Portsmouth, Bolton, and Blackburn. Whooping-cough caused the greatest mortality in Portsmouth, London, Bolton, and Cardiff; measles in Portsmouth, Plymouth, and Blackburn; scarlet fever in Leeds; and "fever" in Birkenhead. The 39 deaths from diphtheria in the twenty-eight towns included 19 in London, 3 in Birmingham, 3 in Liverpool, 2 in Bristol, 2 in Birkenhead, and 2 in Oldham. Small-pox caused but 1 death among the residents of London and its outer ring, 3 in Liverpool, and not one in any of the twenty-six other large provincial towns. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had declined in the preceding fourteen weeks from 90 to 11, were 10 on Saturday last; 2 new cases were admitted to these hospitals last week, against but 1 in each of the previous two weeks. The Highgate Small-pox Hospital contained 4 patients on Saturday last, one case having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 479 and 584 in the preceding two weeks, further rose last week to 639, and exceeded the corrected weekly average by 98. The causes of 94, or 2·1 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Preston, Birkenhead, Cardiff, and in three other smaller towns. The largest proportions of uncertified deaths were registered in Halifax, Oldham, Brighton, and Newcastle-upon-Tyne.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been equal to 21·3 and 24·5 per 1000 in the preceding two weeks, declined again to 22·3 in the week ending February 20th, and was 1·1 below the mean rate during the same week in the twenty-eight English towns. The rates in the Scotch towns last week ranged from 17·4 and 19·2 in Edinburgh and Leith, to 24·3 in Paisley, 24·6 in Perth, and 24·8 in Glasgow. The 551 deaths in the eight towns showed a decline of 55 from the number in the previous week, and included 16 which were referred to diarrhœa, 13 to whooping-cough, 8 to scarlet fever, 4 to measles, 3 to diphtheria, 2 to "fever," and not one to small-pox; in all, 46 deaths resulted from these principal zymotic diseases, against 32 and 53 in the preceding two weeks. These 46 deaths were equal to an annual rate of 1·9 per 1000, which was 0·5 below the mean rate from the same diseases in the twenty-eight English towns. The 16 deaths attributed to diarrhœa corresponded with the number in the previous week, and included 7 in Glasgow, 5 in Aberdeen, and 3 in Leith. The fatal cases of whooping-cough, which had been 9 and 17 in the preceding two weeks, declined again last week to 13, of which 10 occurred in Glasgow. The deaths referred to diphtheria and "fever" showed a decline from recent weekly numbers; 2 from diphtheria were returned in Aberdeen. Six of the 8 fatal cases of scarlet fever occurred in Glasgow, and all the 4 of measles in Edinburgh. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 135 and 144 in the previous two weeks, further rose last week to 153, and exceeded by 14 the number returned in the corresponding week of last year. The causes of 66, or nearly 12 per cent., of the deaths in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had steadily increased in the preceding four weeks from 29·6 to 38·6, declined again to 31·8 in the week ending Feb. 20th. During the first seven weeks of the current quarter the death-rate in the city averaged 32·5 per 1000; the mean rate during the same period did not exceed 23·3 in London, and 18·3 in Edinburgh. The 215 deaths in Dublin last week showed a decline of 46 from the number returned in the previous

week, and included 20 which were referred to the principal zymotic diseases, against 26 in each of the previous two weeks; 16 resulted from whooping-cough, two from "fever" (typhus, enteric, or simple), 1 from measles, 1 from scarlet fever, and not one either from small-pox, diphtheria, or diarrhœa. These 20 deaths were equal to an annual rate of 3·0 per 1000; the rate from the same diseases last week did not exceed 2·7 in London and 1·2 in Edinburgh. The fatal cases of whooping-cough, which had declined in the preceding five weeks from 19 to 10, rose again last week to 16. The deaths from "fever," on the other hand, declined to 2 last week from 6 and 14 in the previous two weeks. Two inquest cases and 3 deaths from violence were registered; and 50, or nearly a quarter of the deaths, were recorded in public institutions. The deaths both of infants and of elderly persons showed a considerable decline from the numbers in the previous week. The causes of 37, or more than 17 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

WAR OFFICE.—Army Medical Staff: Brigade Surgeon Charles Hamilton Harvey, M.D., is granted retired pay, with the honorary rank of Deputy Surgeon-General. The undermentioned Surgeons on probation to be Surgeons:—Michael Thomas Yarr, Langton Philip Mumby, M.B., Charles Henderson Melville, M.B., Bernard Langley Mills, M.B., Hugh Rayner, M.B., Richard Edward Genge, George Schuyler Cardew, M.B., Charles Alan Renny, M.B., Herman Thiele, M.B., Horace Cocks, M.B., James Barnett Wilson, M.D., William John Lee, John Greer Black, M.D., John Kearney, M.D., Frank William Hennessy, M.B., Francis Albert Saw, M.B., Whitley Bland Stokes, M.B., Frederick William George Hall, M.B., Arthur Kennedy, George Scott Tate, M.D., Henry William Martindale Kendall, Henry Percival George Elkington, Robert Charles Gordon Dill, John Blacker Whitla Buchanan, M.B., Frederick Thomas Skerrett, Henry Mackenzie Adamson, M.B., Herbert Murray Ramsay, Tudor Germain Lavie, James Rose, Robert Hippisley Cox, Harry Herbert Brown, M.B., Thomas Herbert Corkery, Edward Hawke Locker, Warren Rolond Davies Crooke, M.D., Walter Perfect Squire, Charles Lawrence Walsh, James J. O'Donnell, M.B., Stanley John Wallace Hayman, and Julian Philip Swindell Hayes.

INDIA OFFICE.—The Queen has approved of the retirement from H.M. Indian Forces of the following officers:—Brigade-Surgeon G. Alder Watson, Bengal Medical Establishment; Brigade-Surgeon C. Robertson, M.D., Madras Medical Establishment; Surgeon-Major Henry Atkins, Bombay Medical Establishment.

The following officers are granted a step of honorary rank on retirement: Brigade-Surgeon Thomas Beaumont, M.D., and Brigade-Surgeon Charles Robertson, M.D., both of the Madras Medical Establishment, to be Deputy Surgeons-General. Surgeon-Major Malcolm Munro Mackenzie and Surgeon-Major Henry Atkins, both of the Bombay Medical Establishment, to be Brigade Surgeons.

ADMIRALTY.—The following appointments have been made:—Staff Surgeon Henry Madders, M.D., to the *Emerald*; Staff Surgeon John K. Conway, M.D., to the *Liffey*; Staff Surgeon William B. Drew, to the *Himalaya*; Surgeon J. C. Dow, to the *Himalaya*; and Surgeons F. W. Stericker, J. F. Bate, W. F. Pryn, G. E. Kennedy, J. Barry, A. J. Pickthorne, E. A. Spiller, J. Andrews, E. Apthorp, H. J. Hadden, J. J. M'Donnell, J. G. Webb, V. G. Thorpe, M. H. Atock, G. W. Meaden, J. H. Dawe, to the *Duke of Wellington*, for service at Haslar Hospital.

Amongst the officers who left Portsmouth in the *Malabar* for India on the 24th inst. were Surgeon Thompson, Bombay Medical Staff; and Surgeons Munders, Butterworth, and Baylor, Medical Staff.

MILITIA MEDICAL STAFF.—9th Battalion, the Rifle Brigade (the Prince Consort's Own): Surgeon Robert Vandeleur Kelly to be Surgeon-Major.

RIFLE VOLUNTEERS.—2nd Volunteer Battalion, the Royal Welsh Fusiliers: Thomas Evans Jones, Gent., to be Acting Surgeon.—3rd Durham (the Sunderland): Acting Surgeon Charles Henry Welford, M.D., resigns his appointment.—2nd Volunteer Battalion, the Prince Albert's (Somersetshire Light Infantry): Acting Surgeon Rowland Hill West resigns his appointment.

Correspondence.

"Audi alteram partem."

RINGWORM OF THE HEAD AND ITS TREATMENT.

To the Editor of THE LANCET.

SIR,—In your issue of Feb. 20th a "Portuguese" (?) treatment of ringworm is mentioned, and it is suggested that ringworm of the most obstinate character may be cured in ten days by using turpentine and iodine. As this notice may lead some to think this is a new way of treating this most troublesome complaint, I may remind such that it is an old treatment, and has been fully described.

So many treatments have been suggested—almost as specifics—for this disease within the last few years, that one is tempted to inquire whether their authors really know when this complaint is absolutely cured. From my own personal knowledge I know that many medical men both consider and certify ringworm to be cured when it is in a contagious state, and that we are fully justified in doubting whether many of the so-called "cured" cases are not in the condition I have so often called attention to before—viz., cases which have been treated until perhaps some new hair has made its appearance, but in which diseased, broken-off hairs are easily to be detected with a lens. I do not speak at random, but with the fullest experience and knowledge of the facts which warrant such a statement, when I say that there is not the least doubt that children are constantly sent back to school, even with a medical certificate stating the ringworm is cured, when the disease is in a most chronic, and certainly in a highly contagious, state. Many will hardly credit the number of children that are brought under my notice for admission into Christ's Hospital and into other schools, both public and private, who have had certificates given to them by medical men—often of the highest professional standing—that they are free from contagion, and who still have ordinary ringworm in its most common and chronic form. Even this year I have seen at least twenty such certified cases, and know that the principals of some schools have grievously suffered from these errors.

It is a very easy matter to decide whether a case of ringworm be cured or not (if sufficient time be given to the examination of the head), by the presence or absence of short, fragile, broken-off hairs, called stumps; and I cannot do better than quote the definition now adopted by the Medical Officers of Schools Association, and published by them in their "Code," in reference to this matter: "When may a pupil who has had ringworm rejoin a school?—When, the whole scalp having been examined in a good light, and any suspicious spot scrutinised with a lens, no broken-off stumpy hairs (which give evidence of the ringworm fungus when carefully examined under the microscope) are to be detected. It is sometimes considered that ringworm is cured when the hair commences to grow on the diseased places, but this is a mistake, for it frequently happens that diseased broken-off hairs remain, and the disease may thus exist for months or years. It is often very difficult to detect the short stumps which protude only a sixteenth or an eighth of an inch, and it is quite useless to examine short cut-off healthy hairs from a suspicious spot under the microscope for the ringworm fungus."

What I wish the profession to realise is that when remedies are said to cure obstinate ringworm in a week or two there must be a mistake somewhere; either the case was not one of tinea tonsurans at all, or else the disease cannot have been cured in such a short space of time, except by the application of strong caustics, which would cause scars, or by the production of kerion by croton oil or other means. It is impossible for the diseased stumps to be got out of the follicles and for new hair to grow from them in less than from six to twelve weeks. As a rule, lotions or ointments have to be assiduously applied for months before the case is quite well; and unless kerion has been set up it is not justifiable to certify a patch of ringworm to be cured until new hair has replaced the diseased stumps, for it is easy for these to be rubbed down on a level with the skin, and for the place to appear well to an unpractised eye. Diseased stumps do not suddenly grow up into healthy hairs, but they come out and are replaced by fine new downy

hairs; and even when these appear, it by no means proves the case to be cured, as there are generally a few diseased stumps left, which can easily be seen with a lens, their removal being most difficult, and sometimes impossible for months. Therefore, although most of the hair may be growing firmly and freely over a patch of ringworm, this alone does not prove the case to be cured.

With regard to the treatment by turpentine and iodine, though certainly a good one, yet I believe it will fail in the majority of obstinate cases. The plain truth is that there is no known remedy that is sure to eradicate any given case of ringworm, even after months of treatment; and sometimes children will have this complaint for years, though every means be taken to remove it. Oleate of copper and mercury, and all other remedies, often fail, in spite of what has been written to the contrary.

I am, Sir, yours obediently,

ALDER SMITH, M.B., F.R.C.S.,
Medical Officer to Christ's Hospital.

Feb. 24th, 1886.

HOME *v.* HOSPITAL TREATMENT OF INFECTIOUS DISEASES.

To the Editor of THE LANCET.

SIR,—On January 23rd you drew attention in an annotation to the section of my Report on the Sanitary Condition of Bradford dealing with the above important subject. For reasons which will appear pretty obvious, I have given in my reports to the Town Council the rates, and not the actual numbers, upon which I founded my opinion that in Bradford the proportion of recoveries among those treated in hospital for certain infectious diseases is very much greater than among those treated at home. As you expressed a desire to have fuller information on the subject, I have much pleasure in laying the details before your readers.

As the compulsory notification of infectious disease has been in operation here over four years, already a considerable number of cases have been recorded on which to form an opinion. During 1882, 1883, 1884, and 1885 there have been 758 cases of typhoid fever and 2032 cases of scarlet fever. (I deal with these two as by far the most important diseases, the case of other diseases notified having been much too few to be of value for drawing any reliable conclusion from.) Of the cases of typhoid fever, 404 were treated in the hospital and 354 at home; the deaths among the former numbered 57, and among the latter 98, giving a death-rate of 14·10 per cent. for the cases treated in hospital, and of 27·68 for those treated at home. Of the 2032 cases of scarlet fever, 1143 were treated in the hospital (during the same period), and 889 at home; of the former, 78 died, and of the latter 104, giving respective rates of 6·82 per cent. deaths for the cases of scarlet fever treated in hospital, and of 11·69 for those treated at home; the number of cases of these two diseases dealt with is considerable, indeed very much larger than that frequently regarded as sufficient for using as the grounds for an opinion as to success in therapeutics, whether medical or surgical, and the numbers compared treated in hospital and at home are not markedly different. The period embraced—four years—is also one of considerable duration. In the case of scarlet fever the lower rate prevailed every year in the hospital; the rate for typhoid was a little higher in the hospital for the first year (1882), but during each succeeding year the advantage has been very much on the side of the hospital. These particulars will be seen at a glance in the table given below.

The explanation which you suggest of these facts—viz., that the home-rate is increased by the suppression of notification of mild cases—is, I think, not warranted. So far as concerns notifications sent by medical men I am perfectly satisfied it is erroneous. I have every reason to believe that every member of the profession continues loyally to carry out the anxious and troublesome duties cast on him by the Act requiring notification. It would be expecting greater certainty than prevails in any human affairs to expect that no case unattended by a medical man ever escaped notification. There may be some few which do, I think there are not many. But even allowing for such cases, the difference between the hospital rate and the home rate is so great that it cannot reasonably be thus accounted for. The latter is pretty nearly double the hospital rate for both scarlet fever and typhoid. With regard to the character of the cases sent into the hospital, some are sent in because they are very severe, others are kept at home for the same reason—viz., that they are too ill to be moved. Again, some cases may be sent into hospital which are exceedingly mild and only need isolation; but for the same reason many mild cases are treated at home because of the slight character of the symptoms. I am informed by Dr. S. Evans, the resident physician at the Fever Hospital, that if the severe cases sent to the hospital which die within twenty-four or forty-eight hours of being received there were deducted from the hospital figures the result would be to show a very great reduction in the hospital rate. Such cases can hardly be said to have undergone treatment at the hospital at all, although they increase the death-rate recorded in the institution, and lower the proportion of deaths at home. I think, indeed, the explanation of the more favourable returns from the hospital is not far to seek. Perhaps 97 per cent. of the cases occur among the poorer class, fully 96 are distinctly of this class, and of these a large proportion are of the poorest class. There is no doubt excellent professional skill available for their treatment at home; but of what use can this be in small crowded rooms, where fresh air, were it available, is not admitted, situated as workmen's houses usually are, and without the skilled nursing, constant care and supervision, and abundant and suitable dietary which the hospital can provide? If the acute stage of the fever be tided over, there remain the difficulties attending convalescence, which are not small in the case of the two diseases I refer to. But these are only matters of opinion. I have given the facts as fully as possible, so that your readers may judge whether my strong advocacy of hospital treatment in this town is well founded or not.

TABLE SHOWING THE MORTALITY PER 100 CASES FROM SCARLET FEVER AND TYPHOID FEVER IN BRADFORD, WHEN TREATED IN THE HOSPITAL AND WHEN TREATED AT HOME.

Year.	Death-rate per 100 Cases.					
	Scarlet Fever.			Typhoid Fever.		
	Treated at home.	Treated in hospital.	All cases.	Treated at home.	Treated in hospital.	All cases.
1882	18·4	14·5	13·9	13·0	17·3	15·2
1883	15·8	7·3	10·3	32·6	14·2	22·1
1884	9·1	4·2	6·7	29·6	18·5	24·5
1885	8·3	3·9	5·9	42·1	6·3	19·80
Mean 4 years	11·7	6·82	8·95	27·7	14·1	20·44

I am, Sir, your obedient servant,

Town Hall, Bradford, Feb. 8th, 1886. T. WHITESIDE HIME.

ENTERIC FEVER.

To the Editor of THE LANCET.

SIR,—After reading the interesting discussion at the Royal Medical and Chirurgical Society on Enteric Fever at Suakim (THE LANCET, Feb. 13th), I thought that a few notes gained from my experience in South African warfare might not be unacceptable; the subject can be read more in detail at page

513 of the Transactions of the International Medical Congress of 1881. In the Kafir war of 1877 I was principal medical officer of the Naval Brigade, and in 1879 I was principal medical officer of the Column of Invasion commanded by Brigadier-General Sir C. Pearson, K.C.M.G., C.B., during the Zulu war, and I thus had ample opportunities of seeing a very large number of cases of both enteric and the so-called typho-malarial fever. I must say that I entirely agree with those authorities who are of opinion that the disease frequently arises *de novo*. During our investment by the Zulus in Fort Ekowe, from Jan. 23rd to April 4th, 1879, we were entirely cut off from all communication with the outer world, except that very rarely a solitary Kafir runner managed to creep through the investing Zulu army from our base of operations some forty miles away on the Natal frontier. Before the march of our column from this base of operations no case of enteric fever had been heard of there; neither was the disease known at the mission station of Ekowe before our arrival there, as I ascertained from a medical missionary who was an old resident. The earliest case of enteric fever occurred among the garrison of Ekowe about the end of the first week in March, and no runner came there from the base in Natal after the 12th of February; it was, moreover, a considerable time subsequent to that date that any case of enteric fever was heard of at the base in question. There were many cases of enteric and typho-malarial fever at Ekowe, including several deaths. Thus it will be seen that it is as nearly proved as anything of the kind can possibly be that the affection must have arisen *de novo*, unless the very dubious hypothesis is advanced that the provisions with which we were supplied contained the germs.

I believe that the cause, in these countries at least, is generally to be sought in the prolonged occupation of a camping-ground, and that the term "pythogenic" is a very happy one. I am of opinion that flies are great factors in its production; they swarm in latrines and cesspits, where the heat favours decomposition, and arise from them often with their fine hairs coated with putrescent matter, shortly to be deposited on articles of diet, or in potable fluids, in which they are often found drowned. The fine surface impurities of these camps are also wafted by the winds into the tents, covering the food and potable water, or being inhaled or swallowed with the saliva. I do not remember ever seeing a case of enteric fever which occurred in an active flying column, which is of course constantly changing its camping-grounds or perhaps merely bivouacking at night, or for some considerable time after such a column had become stationary; but whenever the disease appeared it was invariably in a camp of some permanency, where decomposition of animal matter and frequently malaria coexisted in a subtropical heat.

The colonial surgeon of the Lower Tugela Division of Natal, in which our base of operations was situated, informed me that he had never seen a case of enteric fever in his district until the advent of our troops in 1879; and he told me, a year and a quarter after the troops were withdrawn, that since their departure not a single case had been brought under his notice.

I witnessed several necropsies of cases of so-called typho-malarial fever, and, so far as the morbid appearances were concerned, they were strictly identical with those of ordinary enteric.

I am Sir, yours truly,

HENRY F. NORBURY, C.B.,
Fleet Surgeon R.N.

Plymouth, Feb. 18th, 1886.

INVERSION OF THE UTERUS.

To the Editor of THE LANCET.

SIR,—In THE LANCET for Dec. 26th, 1885, is a very interesting case by Dr. Arbuckle of the reduction of chronic inversion of the uterus by the combined method of incision of the cervix and sustained elastic pressure. Dr. Arbuckle does me the honour to cite me as the author of the treatment by incision. Dr. Neale in a subsequent number quotes his valuable "Digest" to show that "Dr. Pratt of Fife contributed a paper to the *Medical Times and Gazette* in 1868, in which he asserts that Dr. Wasseige of Liege is the sole originator of this most effectual plan." As I should be sorry to let it appear that I could in any way wish to appropriate merit due to others, I must beg of you to give me the opportunity of presenting the following explanation. I have not been able to find the memoir of Dr. Wasseige referred to by Dr. Pratt, nor do I find "Dr. Pratt of Fife" now on the Register; so that I have no means of verifying the terms or the date of Dr. Wasseige's communication. Perhaps some of your readers may help me. But, in truth, the question of originality is not to be determined by reference to Dr. Wasseige or to Dr. Neale's "Digest." This work is almost limited to noting contributions to three medical journals, and cannot be accepted as an authority upon this or similar questions. If Dr. Neale had extended his researches beyond this range, he might have seen that I have not claimed priority in the idea of incising the cervix for the reduction of inversion. In my memoir in the Medico-Chirurgical Transactions (1869), after discussing the various methods in use, is the following passage:—"Another proceeding stands before amputation. For twenty years I have taught in my lectures that the unyielding cervix may be divided by incisions carried into its substance from above downwards at different points of its circumference. Pressure thus applied will cause it to yield more easily. Huguier, Professor Simpson, and Dr. Marion Sims have suggested the same plan. I am not aware that it had ever been carried into execution before 1868, when I treated a case in this manner with complete success." The case is narrated in the memoir. I published another successful case in the *Obstetrical Journal* (1873), and I have had since at least one more in St. George's Hospital. Other cases are recorded.

Aran's "Maladies de l'Utérus" (1858-60) has the following passage: "Reste à savoir, cependant s'il ne peut pas se trouver des cas dans lesquels la rigidité du col serait à son tour un obstacle à la réduction; je préférerais alors, je l'avoue, le débridement du col pratiqué avec prudence, à l'aide d'un bistouri boutonné, sur la commissure de l'orifice, voire même le débridement multiple." It is to be noted that Aran does not say he has done it, nor does he describe a case.

Thus, so far as my actual information goes, the case stands as I put it in 1869. Although I did not claim priority of publication of the plan of incising the cervix to facilitate reduction of inversion of the uterus, I did claim to have been, as I know, the first who had successfully practised it as an aid to reduction by sustained elastic pressure.

The most memorable discovery in the history of inversion of the uterus is that of Tyler Smith, who first (Medico-Chirurgical Transactions, 1858) successfully demonstrated the method of reduction by sustained elastic pressure, and who thus removed what had hitherto been an *opprobrium chirurgicorum*.

I am, Sir, yours truly,

ROBERT BARNES.

Harley-street, Feb. 1886.

THE TREATMENT OF DOG BITES.

To the Editor of THE LANCET.

SIR,—It has always seemed to me that it was beginning at the wrong end to pay so much attention to hydrophobia and entirely to overlook the treatment of dog bites. It is unnecessary now to plead the cause of the germ theory. Pasteur has shown that this disease is caused by germs, and that poisonous germs exist even in human saliva. The hydrophobia germs are inoculated by the teeth of the dog; why not, therefore, destroy the germs in the wound by some antiseptic? I do not speak against the method of counter-inoculation, or the wonderful skill and vast knowledge of the founder of the germ theory, but I advocate prevention instead of cure. The ordinary treatment of dog bites is unscientific. There is, first, the do-nothing treatment, based on the erroneous idea that free bleeding purifies the wound. Neither blood nor any other fluid could mechanically cleanse an inoculated ragged wound. I have noticed two cases treated in this way followed by hydrophobia. Secondly, applying mild caustics, as nitrate of silver. Though very fatal to the mould plant, it is not an antiseptic; moreover, as soon as it is applied to a wound there is a precipitation of the chloride, which is white, and silver, which is black, both of these being insoluble and inert. Thus, the only effect is to seal the germs in the deep part of the wound with a slight caustic action on the surface. This treatment is commonly followed by hydrophobia. Thirdly, immediate excision or application of some strong caustic, as fuming nitric acid. These being severe methods are not often resorted to.

The most rational treatment of a dog bite is to apply some germicide or antiseptic which will penetrate the tissues without coagulating them. The theory is perfect; therefore failure would only be due either to delay or insufficient

application. The antiseptic used is a matter of detail and sometimes of circumstance. I usually employ a solution of one part of carbolic acid to four or five parts of glycerine, for the following reasons: It is a reliable germicide; it is not a caustic; it penetrates the tissues, the glycerine having an attraction for water, and thereby carrying the antiseptic to the deeper parts of the wound. Probably it passes into the lymphatics, as it is sometimes followed by glandular pain; if so, it is doubly valuable as a germicide. I paint the wound every day till it is healed. By this method the wounds heal without inflammation, leaving a pale, contracted, healthy cicatrix. In 1878 I treated three children that had been bitten by a rabid dog; they were all bitten in the back of the leg; as they walked to school the dog ran in the same direction. They all did well. I inserted pellets of wool soaked in glycerine carbolic into the holes made by the canine teeth. I have noticed some dog-bite scars which have never been treated. They have been purple and bulging; as that is an unhealthy appearance, I excised with antiseptics, obtaining pale, contracted cicatrices. I saw a case of hydrophobia last year. The wound, which had been treated with nitrate of silver, had left a purple and raised scar. The dog was supposed not to be rabid. This opens up a very wide question as to whether hydrophobia can be caused by a non-rabid dog. It is interesting to observe that, in whatever part of the body the germs are inoculated, they find no resting-place till they reach the salivary glands, which form their natural soil. As no single method of treatment has ever cured hydrophobia, rational experiments are legitimate. The snake poison lately proposed seems rational. I would suggest also a rational experiment: rapid and profuse salivation by pilocarpine or jaborandi, followed up by small doses of corrosive sublimate, which latter, as well as salivating, would act as an antiseptic in the blood. If the subject of hydrophobia were ventilated in THE LANCET before the hot season begins, it might be productive of much help to those who in the coming summer may be called to treat cases.—I am, Sir, yours, truly,

Leytonstone. ALBERT WILSON, M.D.

THE TREATMENT OF PERTUSSIS.

To the Editor of THE LANCET.

SIR,—I have read the letters of Messrs. Cory and Kerr in THE LANCET with much interest, and I congratulate them upon their success in the treatment of whooping-cough by carbolic acid. Allow me, however, to point out that carbolic acid is recommended internally and by inhalation to lessen the spasm by Dr. Wm. Squire in his article upon Whooping-cough in "Quain's Dictionary of Medicine." It is difficult for one to believe that carbolic acid given in the usual medicinal doses can have any power in stopping the progress of the disease, for I believe it is now generally held that whooping-cough is caused by specific pathogenic organisms, and Koch has clearly shown by experiment that it requires from ·25 to ·5 per cent. of carbolic acid of the whole volume of blood in the body to kill bacilli and 5 per cent. to destroy the spores. Of course this quantity present at one time in the blood would poison the patient, so that it appears carbolic acid cannot be depended on as a universal antiseptic; and until an antiseptic shall be discovered which can safely be prescribed in a sufficient quantity to act as a germicide, I fear that whooping-cough and other diseases due to bacteria will admit of the alleviation of symptoms only. I should like to add that in 1882 I took as the subject of my graduation thesis for the Dublin M.D. degree, "Whooping-cough and its Treatment by Alum," based upon a record of 200 cases which occurred in my practice in London. I showed that by the local application of alum in glycerine to the pharynx and upper part of the larynx the expiratory spasms were lessened in frequency and violence in a large percentage of recent cases. No doubt alum acts by coagulating the albumen of the mucus of the tissues, and thus shielding the parts, which are in a state of intense hyperæsthesia from irritation and consequent reflex action; also by its astringent action limiting the blood-supply, and so relieving the hyperæmia often present. The alum and glycerine is not unpleasant to take, and a little is placed on the child's tongue several times during the day and night, and if this does not seem sufficient the back of the pharynx and upper part of the larynx are carefully brushed over night and morning with the same application. This proceeding does not interfere with the treatment of complications which are generally present in cases of any duration. Everyone is aware how important it is, in rickety children especially, to stop the spasms if possible, or how quickly such patients will die of convulsions. It has occurred to me that the local application of cocaine would prove even more effectual than alum in these cases, and would not require to be so frequently applied. I should be glad to hear if this alkaloid has been tried.

I am, Sir, yours truly,

Bournemouth, Feb. 1886. A. WOODMAN-DOWDING, M.D. &c.

PROFESSORS GAUTIER AND PETERS ON ANIMAL ALKALOIDS.

(*From a Correspondent.*)

AT a recent *séance* of the Academy of Medicine at Paris, Professor Gautier, already well known for his researches on the subject, read a paper which bore for title "On the Alkaloids derived from the Bacterial or Physiological Destruction of Animal Tissues." This is the result of the stimulus which animal chemistry received from the discovery of ptomaines, or cadaveric alkaloids, and the subject cannot fail to be of general interest, if only from the wideness of the field of knowledge, a glimpse of which is thus afforded us in connexion with disease and morbid processes of the body. During the present reign of bacteriomania we hear a great deal of the presence of these micro-organisms in connexion with health and disease, but the subject here opened up pushes our views and reasonings still further, so that we may in the future be able to have distinct ideas as to the physiology and effect of these organisms on the tissues or pabulum where they have elected to settle; and, further, it opens up a field of research for the physiologist concerning the nutritive metabolism of each living cell.

The first part of the paper treats of the alkaloids derived from putrefaction or ptomaines, which owe their origin to the putrefactive micro-organisms, and commences with a *résumé* of the history of the subject, embodying the results obtained by Selmi and others, and then passes on to the method in which these bodies are obtained, of interest only to the chemist. The Professor concludes that these bodies are always produced in the putrefaction of animal tissues; that they are poisonous when administered to animals, and produce effects comparable to those seen when vegetable alkaloids are employed; that they are free from oxygen, and volatile or oxygenated; that they vary according to the nature of the material in which they are formed, and possibly according to the date of the putrefactive change; but one alkaloid in particular (hydrocollidine) is always found, whatever be the material used, which would seem to imply that this was the product of the bacterium possessing the most vitality in comparison with the others—the victor in the struggle for life.

The second portion of the paper deals with the leucomaines, which are alkaloids produced during the existence of the body, and which appear to be products of its ordinary metabolism. For example, five alkaloids, perfectly definite and crystallisable, have been extracted from the muscles of the higher vertebrates, having an action on the nervous centres, producing somnolence and fatigue, and some of them vomiting and purgation, but acting with less energy than the cadaveric alkaloids. These rejoice in the names of creatinine, xanthocreatinine, crusocreatinine, amphicreatine, pseudoxanthine, their names showing their similarity with the nitrogenous metabolites already known. Their existence determined, the questions arise—How are they produced? and how do we escape the evils arising from their continual reproduction and presence in the blood? The latter question is answered by saying that they are eliminated by the natural emunctories of the body, by the alimentary canal, by the kidneys, and by the skin, provided that these organs are in a condition to perform their function; but in diseases where these organs are affected the elimination of the leucomaines is incomplete, and they accumulate in the blood and tissues and give rise probably to many of the phenomena of the particular disease in question. The application of this doctrine to uræmia is so obvious that I need but to mention it, and yet its applica-

tion to many slighter ailments must quickly suggest themselves even to such a common case as that of a cold; and supposing that the doctrine be a true one we are at the same time furnished with a scientific indication for treatment—viz., to open up the emunctories and get rid of the peccant matter, which is a curious return to the doctrines of the past. The first question, Where are the leucomaines formed? the Professor answers by the remarkable statement that the higher animals are to a very large extent anaerobic—that is to say, that a portion of their tissues undergo their metabolism independently of the circumambient oxygen, and may produce this gas by the splitting up of the proteid molecule; and he quotes, in support of this statement the experiment of Pettenkofer and Voit on the respiratory changes in a dog in which there are 110 grammes of expired oxygen unaccounted for, which, according to his theory, is derived from the autonomous combustion of aliments and tissues. This is an interesting question, but rather concerns the physiologist than the practical medical man. What it behoves the latter to remember is the existence of these bodies and their method of elimination or oxidation. The former I have just mentioned, but the latter is as important. These bodies are very easily oxidised, while the supply of hæmoglobin is sufficient and good; but if from any cause this is deficient, the quantity of leucomaines and similar bodies augments, which possibly explains the nervous troubles of chlorosis, anæmia, and gestation.

The important results obtained by Prof. Gautier have been hailed with joy by the opponents of the bacterial schools of pathogeny, and already the Academy of Medicine has heard from Professor Peter the application of the discoveries of Gautier to medicine, and particularly to the views which he has for a long time taught in the amphitheatre of the Paris Faculty. In France Professor Peter is the chief antagonist of the microbian theories of disease, and he never fails to controvert and criticise their teachings. His most recent utterance was the *séance* of the Academy of Feb. 2nd, when he commenced his address with the statement that he was going to bring the support of the medicine of tradition to the medicine of the future. Briefly touching on Professor Gautier's results, which, summed up, are that the animal produces alkaloids (leucomaines) and extractive matters in the process of its nutritive changes which are endowed with toxic properties, he goes on to show how that life is but a series of deaths, how each carries with him and in him his own corpse, and by this series of deaths life is produced. Life is nothing but a partial and prolonged suicide. This being so, on what a slender thread depends the state we call health. If through defect of the emunctories or excessive production of alkaloids an accumulation takes place, the body is saturated with toxic matter, to which condition the Professor applies the term "auto-typhisation," and quotes as an example the cases where typhus arises in armies through privation and want; but when once the poison is generated in the system it can be conveyed to others, and constitutes hetero-typhisation. If this be true of typhus it is also true of typhoid, and the exact nature of the disease will vary according to the toxic material accumulated in the blood. Thus we may have true typhus, uræmic typhus (uræmia), cholæmic typhus (icterus gravis), and atheromatous typhus (ulcerative endocarditis); but the fact common to all typhic affections is the presence in the organism of an animal poison so deleterious to life that it disturbs the processes of living matter. It is infection, and the symptom common to all is τῦφος, or stupor. When the emunctories are at fault we have the accumulation of disassimilative products in the blood, which may be of the nature of alkaloids or extractive matter. The former are less toxic, and determine a hypothermia; the latter are more toxic, and produce a hyperthermia; and according to the presence of one or other of these agents the state of the temperature in uræmia can be explained, which temperature is notably subject to unaccountable variations. The Professor then briefly touched on the subject of cadaveric alkaloids, and showed how their presence may be the cause of many of the cases of poisoning by meat in a certain state of putrefaction, which conditions are accompanied by hypothermia, as in arsenic or other poisonings.

However much we may differ from Professor Gautier's views, there is no doubt that his discoveries have opened up a field of inquiry the extent of which is vast, and the application of which to processes of disease is of the easiest kind. Perhaps at present it is premature to talk of the medicine of the future; but these discoveries will doubtless have the effect of directing research to the minute details of nutritive change in connexion with this subject, and claiming some of the attention which has been directed to the research for microbes. That the microbian theory has received a severe blow is not true, as it is too well grounded in particular instances to be ever upset; but in many cases where it has failed the medical man may fall back upon the existence of leucomaines to clear his views and frame his working hypothesis, if for no other reason than his own personal satisfaction.

EDINBURGH.

(From our own Correspondent.)

SCOTTISH MEDICAL SOCIETIES.

LAST week the annual dinner of the members of the Royal Medical Society was held in Edinburgh. Dr. H. A. Thomson, the senior President, occupied the chair. Amongst the guests were the Lord Provost of Edinburgh, several of the Professors of the University, Professor Gairdner of Glasgow, and Mr. Lawson Tait of Birmingham. The chairman, in proposing the toast of the evening, "The Health of the Royal Medical Society," referred to its antiquity, this being the 150th year of its existence, and drew attention to some of the honourable names upon its roll. He specially mentioned the loss which the Society had sustained in the recent lamented death of Dr. W. B. Carpenter, F.R.S., who was senior President of the Society, and occupied the chair at its annual dinner in the centenary year of its existence, exactly fifty years ago. The Society is in a more flourishing condition than ever, its membership has steadily increased, its buildings are commodious and well arranged, and its library of 35,000 volumes is a great boon to its members. It forms an important factor in the medical training of those who are wise enough to join it in their early student days, for in its debates a facility in the public discussion and criticism of medical topics is acquired, and a familiarity with the conducting of public business is obtained—facts of great importance in the after-life of many students, as the sequel in the career of many an old member has proved. The dinner was of the usual character, enlivened with several good songs, which did credit to the musical talent of the profession, and which has always been one of its strong points in Edinburgh. It was attended by a representative gathering of present and old members, which showed that a warm interest in the Society's welfare is still maintained.

An extraordinary meeting of the Medico-Chirurgical Society was held on the 17th inst. in the hall of the Royal College of Physicians, which was specially lent for the occasion, and to which many visitors were admitted, in addition to the members of the Society. Professor T. Grainger Stewart of the chair of Practice of Physic, President of the Society, occupied the chair, and an exhaustive discussion on the subject of Abdominal Surgery occupied the whole evening. The discussion was opened by Mr. Lawson Tait, who travelled from Birmingham specially to be present on the occasion. Amongst the numerous speakers who took part in the proceedings were Professors Simpson and Annandale, Dr. John Duncan, Dr. Croom, and Dr. Byrom Bramwell.

IRELAND.

(From our own Correspondent.)

VICE-REGAL MEDICAL STAFF.

HIS Excellency the Lord-Lieutenant of Ireland has made the following appointments:—Physician-in-Ordinary: G.W. Hatchell, M.D. Surgeons-in-Ordinary: P. C. Smyly, Esq.; E. D. Mapother, Esq. Surgeon to the Household: T. Nedley, M.D. Surgeon-Oculist: A. H. Jacob, M.D. Surgeon-Dentist: D. Corbett, M.R.C.S.

ENLARGED THYROID.

At a meeting of the Surgical Section of the Academy of Medicine in Ireland, held last week, Professor Stokes exhibited an enlarged lobe of the thyroid gland, which weighed

twenty ounces. The other lobe had been removed by the same gentleman about three months since. The hæmorrnage, as is usual in these cases, was very considerable. The disease was of about two years' duration.

LUNATICS IN WORKHOUSES.

It appears from official records that on Jan. 1st, 1885, there were 3775 persons labouring under some form or other of mental disease in the various union workhouses throughout Ireland. The greater portion of these were epileptics or imbecile from birth, while aged and demented lunatics formed the remainder. As a rule, the classes thus adverted to are, as it were, indigenous to poor-houses, having been located in them in early life by the relieving officers of unions when abandoned and in a destitute state, very few of them, comparatively speaking, being transferred from district asylums. In fact, boards of guardians are for the most part strongly opposed to the detention of insane patients in workhouses, although aware that if suitable provision were made for their treatment in them, the benefits derivable from district asylums would be largely increased, their overcrowding by hopeless cases obviated, and the admission of acute and curable ones facilitated at the proper time.

SOUTH DUBLIN UNION.

The recent half-yearly report of Mr. Robinson, Local Government Board Inspector, as to the condition of this workhouse is generally of a favourable character, except as to the inadequate arrangements for the supervision of the lunatics and idiots and the insufficient accommodation provided for them. It seems that since last inspection the number of lunatics has not diminished, and both on the male and female side of the workhouse this department is so much overcrowded that many who properly belong to the insane class have to be distributed through other wards. It is expected that when the children are sent to the new schools sufficient accommodation will be found for the lunatics located in the house.

DUBLIN NATURALISTS' FIELD CLUB.

At the opening meeting of this Club, held last week, the President (Dr. E. P. Wright) stated the objects were the practical study of natural history, botany, and geology, chiefly of the province of Leinster. He reminded the members of the well-known Natural History of Birds in Ireland by Thompson, and he hoped that in time they would be able to give an equally valuable history of fishes and of the other groups of animal life. There was an equally wide field when they passed from the animal kingdom to plants, as there were whole groups of plants which were literally waiting to be collected and described. Thanks to the geological survey, the geology of the district might be said to be known, yet there was a great deal even in this branch to be done by the Club in collecting specimens of fossils, both of animals and plants, a work which did not strictly belong to the survey. Various excursions have been arranged from May to October.

HEALTH OF DUBLIN IN 1885.

The births in the Dublin registration district during last year numbered 10,144, being equal to 29 per 1000; and the deaths 10,022, or 28·4, against an average death-rate of 29·4 for the preceding ten years. A great improvement in registration was effected in 1879 by means of the burial returns then introduced in compliance with the provisions of the Public Health Act, 1878. The mortality in the Dublin district during last year was, therefore, considerably below the actual annual average for the ten years 1875-84.

By a clerical error in last week's issue it was stated that the election of a curator to the museums of the Royal College of Surgeons would take place last week. It should have been next month—viz., the 18th prox.

Dublin, Feb. 23rd.

PARIS.

(From our own Correspondent.)

DEATH OF DR. WILLIAM E. JOHNSTON.

THIS well-known American physician died at his residence in Paris on the 14th inst. of a chronic affection of the stomach, in the sixty-second year of his age. Dr. Johnston was a native of South America, and it was after the civil war that he came over to Europe and started as a newspaper correspondent, in which capacity he greatly distinguished himself. With his American degree he obtained permission in 1866 from the French Government to practise medicine in Paris, where he acquired great popularity and fame, not only among his countrymen, but also among the French and foreign residents of this city. He was of a handsome physique, and it is said that he bore a striking resemblance to Albert Sidney Johnston, the celebrated Southern general, who was a cousin of Dr. Johnston's father. He was officially attached to the American Legation in Paris, and always proved himself a wise counsellor on all matters coming within the scope of his profession. He rendered great service to the sick and wounded during the siege of Paris, when he was attached to an ambulance, and continued therewith to the end of the Commune, which followed the siege. In recognition of his services he was created Chevalier of the Legion of Honour, and in 1876, for further services, he was raised to the rank of Officer of the same order. He was also Officer of the Crown of Prussia. The funeral service took place at the American Church, in the midst of a large concourse of friends, the American Legation being officially represented. The remains of the lamented physician were afterwards deposited in a vaulted chamber in the church, to await removal to the United States.

PTOMAINES AND THE MICROBE THEORY.

The debate opened at the Academy of Medicine by MM. Gautier and Peter on the part played by ptomaines of disease promises to be a long one, as many members have inscribed their names to take part in it. Till now Professor Peter stands alone in his theory of auto-infection, though he cannot help conceding that some diseases are generated by microbes. The difference, however, between Professor Peter and his adversaries is that, whilst he cannot but admit the presence of microbes in certain diseases, it is yet a moot point as to whether they are the cause or the products of the disease. In any case the knowledge of bacteriology, as it is pompously termed, has thrown no light whatever on the true nature of the disease, nor has it enabled us to invalidate the teachings of the old school. The speakers who have as yet taken part in the debate seem to have forgotten all about the ptomaines, as their discussions have been confined to microbes. In an able speech, Professor Cornil endeavoured to show that the microbian theories are not really contradictory to that which is taught us by traditional medicine, but that they serve, on the contrary, to clear up many points which have till now been enveloped in obscurity. Further on, he made a sort of compromise between the old and the new doctrines by stating that the presence of micro-organisms in infectious maladies suffices to show their *rôle* in the development of disease; and without denying the influence of the soil or constitution of the individual, on which is founded the theory of the old anatomico-pathological school, it must be admitted that the modern school furnishes us with a better explanation of the specificity of different morbid states. The debate is still open, and I am afraid will remain so for some time to come, between the microbists and the non-microbists without much light being thrown upon the matter by either party, although the speakers are men of note.

THE PRIX LABORIE.

The Société de Chirurgie de Paris has awarded the Prix Laborie to Professor Lagrange, of the Faculty of Bordeaux, for his memoir on the Therapeutic Value of the Elongation of the Nerves.

ROME.

(From our own Correspondent.)

Solvitur acris hiems. The year has turned, and the Italian spring—or *primavera*, beautiful as its name!—has left its first imprint on meadow and mountain side. Wherever the gay world congregates, at the meet on the Campagna, on the picnic excursion to sylvan Tusculum, to the still Alban Lakes, to the headlong Anio, or with the archæological party at lonely Ostia or deserted Veii, the charm of holiday is enhanced by the exhilaration of the cloudless azure overhead, the fragrance of the wild violets under-foot, and the

gold-green haze of the woods around. Rome is looking her best, save where the city architect is trying to "improve" her! and, responsive to her attractions, visitors are trooping in with every train, till the resources of hotel and *pension* are strained to bursting, and landlord and landlady are threatened with eviction from their own rooms—not, however, without ample "compensation for disturbance." The health of the English-speaking public is good, and may till the end of the season continue so, if only they are prudent and will not cinchonise themselves, by way of precaution, into worse ailments than they would avoid.

Dr. Tommasi-Crudeli delivered before a select audience the other day a very instructive lecture on the reclamation of the Roman Campagna. Malaria, he showed, does not come from the marshes on the littoral or by the so-called winds of Africa, but is a special earth-poison, favoured in its development by the permanent humidity of the subsoil. Were the winds the importers of malaria, the breeze which prevails in Rome all summer would be pestilential, instead of which it is as health-giving as it is refreshing. That part of the city which has lately been built over or paved is thus protected from the exhaling earth-poison, and were the thorough system of drainage practised under the Antonines in the Campagna restored, that region would be as free from malaria as it was in the second century of Christ. It is no use attempting to dry up the marshes, which are of limited extent and influence; but the subsoil must be drained, saturated as it is by the percolation of water from the volcanic lakes inurned in the hills high above the sea-level. A very interesting account of the way in which the Roman engineers of the second century got rid of this subsoil water was then given, mainly from the researches of Signor Tucci, who showed that the water was collected on the hill slopes by a descending series of galleries, till in the valleys it was stored in reservoirs for legitimate uses. With the liberation of the soil from the excessive humidity one essential factor in the maturing and propagation of the malarial poison is removed.

Following up his attack on the received doctrine as to malaria, Dr. Tommasi-Crudeli has just issued a paper on the woods and their relation to that form of fever. Lancisi's theory that the low-lying belts of forest-growth between the Pomptine marshes and the Latian hills exerted a useful function in detaining and depurating the malarial poison was shown to be purely imaginary, ingeniously evolved to suit a special interest in the retention of the Cisterna thicket. Lancisi's authority was in other fields of medicine so great, so deservedly great, that his ruling in the matter has prevailed down to these days, in spite of a special commission which succeeded in showing its fallacy three years ago. The truth is that malaria resides in the soil between these forests and the city, and must be stamped out of it by removing that humidity which, when accompanied by excessive solar heat, is the main factor in its production. The thicket that Lancisi preserved has since been cut down, to the great advantage in point of health of the population in its vicinity; while had the woods high up on the mountain sides been spared (which Lancisi thought they need not be), the moisture that descends to the plain would have been reduced in quantity, and the subsoil saturation of the Campagna minimised. It is, in fact, the denuding of the Latian hills—hills, mark you, not plains—of so much of their forest-growth that makes it so difficult to revive what the engineers of the second century succeeded in doing.

"One fundamental error," says Dr. Tommasi-Crudeli, "begets an infinite series of derivatives. This idea, that trees act as a filter on the malaria, has spoiled the finest street in modern Rome. When the Via Nazionale was begun, it was planted with trees as far as the Via Quattro Fontane. But by that time a new assessor of public works appeared and argued thus: 'Foliage detains the malaria carried by the winds; in Rome malaria comes only by those winds; hence it is madness to plant those trees, which would simply act as so many condensers of malaria.' And he was as good as his word. Moreover, to prevent anyone after him from continuing the planting he had stopped at the Via Quattro Fontane, he constructed the drains of both sides of the street on the line of the plantings already begun. So all but the first few yards of the Via Nazionale is a boulevard without trees, to the increased comfort of those who have to pace it in summer, lying as it does from east to west in the greater part of its course, and therefore enfiladed by the sun, nearly all day! ..... The history of the discovery of the circulation of the blood is another striking instance in point. From Galen, who affirmed that the blood passed from the one ventricle of the heart to the other by means of foramina existing in the septum which divides the two ventricles, up to Realdo Colombo, who experimentally demonstrated that that septum was impervious, and that the blood passed from the right heart to the left heart by means of the pulmonary circulation, thirteen centuries have passed. During all these ages anatomists sought in the intra-ventricular septum for the foramina described by Galen; but they did not find them, and often confessed that they had never succeeded in seeing them—adding, however: 'They must be there, because Galen has said so.' Even the great Vesalius argued in this way up to the discovery made by Realdo Colombo. Nor, after the evident demonstrations given by Colombo, did the Galenic prejudice cease. Cesalpino himself, who passes in Italy for the discoverer of the great circulation, persisted in admitting the foramina described by Galen, when Colombo many years before had proved that no such things existed. The Lancisian prejudice will last yet awhile, but not so long as its Galenical fellow; for now the scientific world moves faster than ever, and draws along with it in its advance the lay public with more effect than formerly. Perhaps in ten or twenty years it will appear strange and unaccountable that in the year of grace 1886 I have spent so many words in combating an arbitrary assertion made in 1714, based on a physical error such as no student in our Liceo or Istituto Technico would dare to pronounce."

Dr. J. G. Van Marter is prosecuting his interesting researches in early Etruscan and Roman dentistry, and in a tomb lately disinterred near the Lago di Bolsena, belonging to the sixth century B.C., he has found a still more primitive mode of banding the teeth than in the well-known Corneto specimen, marking a distinctly earlier stage of pre-Roman dentistry. "This specimen," he says, "of early Etruscan dental work is of interest to us as the oldest yet found in Italy, and as supplying one of the missing links of the dental chain we are endeavouring to trace back to the beginning of our profession."

Rome Feb. 20th.

MEDICAL NOTES IN PARLIAMENT.

The Lunacy Laws.

IN the House of Lords, on the 19th inst., the Lord Chancellor presented two Bills for the amendment and consolidation of the Lunacy Laws. The Bills were read a first time.

The Sale of Poisons.

On the 23rd inst., the Earl of Milltown gave notice of his intention at an early date to ask Her Majesty's Government whether, considering that a Bill on the subject was read a second time in that House and referred to a Select Committee last session, it was their intention to introduce this session a Bill for regulating the sale of poisons.

The Rating of Hospitals.

In the House of Commons, on the 22nd inst., Mr. Baggallay gave notice of his intention on an early day to call attention to the unsatisfactory state of the law with regard to the rating of hospitals and other public charities in the metropolis.

The Purification of Rivers.

Leave was given to Mr. Hastings to bring in a Bill for the purification of rivers, which Bill was afterwards read a first time.

The Public Health Act.

On the 23rd inst., Mr. Chamberlain, in reply to Mr. J. E. Johnson-Ferguson, stated that his attention had been called to a prosecution by the Atherton Local Board before the Leigh (Lancashire) bench of magistrates under the Public Health Act, 1875, for the removal in a public conveyance of the dead body of a child who had died from an infectious disorder without previously notifying to the owner or driver that it had died from such a disorder; and he had no doubt whatever that the decision of the magistrates was right, and that the word "person" in the Act did not include a dead body, and that a dead body was not a thing *ejusdem generis* with bedding, clothing, or rags. Under these circumstances it was evident that there had been an omission in the Act, and if the Act came up for amendment that point would be noticed.

Obituary.

GAVIN MILROY, M.D., F.R.C.P.

DR. GAVIN MILROY was born in Edinburgh, where his father was a silversmith. He received his general education in the High School, and studied medicine in the University of his native city. A fellow-student who survives him states that he was distinguished by his indefatigable industry and intelligence, as well as by the urbanity of his manners, and that he was also known among his fellow-students as "little Milroy," a term of endearment used by them. It may be said that those characteristics of his youth lasted throughout his long career. He graduated M.D. in 1828. On the completion of his student course, he became one of the founders and active members of the Hunterian Society of Edinburgh, and in his maturity he was similarly related to the Epidemiological Society of London, founded under the late Dr. Babington in 1850. He was secretary of that Society from 1862 to 1864, and its president from 1864 to 1866. Its Transactions contain several valuable contributions by him. He was elected F.R.C.P. in 1853. It appears that he never practised medicine on his own account, but from his early manhood made choice of its literary path. Previously to doing so he availed himself of an appointment as medical officer in the Government Packet Service to the West Indies and the Mediterranean, and it is presumable that in the latter, on returning from the Ionian Islands to Malta, he must have undergone quarantine at the latter place, where the practice was rigidly enforced on all arrivals from the Levant. Although his stay in that service may not have been of long duration, he retained a predilection for the navy, which led him at a later period to contribute a paper entitled "The Health of the Navy considered." Being a young physician of medical erudition, he was retained, together with Mr. Chatto (now the esteemed librarian of the Royal College of Surgeons), on the staff of the then influential periodical, the *Medico-Chirurgical Review*, and after the death of Dr. Johnson, its proprietor, they, conjointly with the late Mr. Grainger, undertook the management of it until fused with the *British and Foreign Medico-Chirurgical Review*. In that position he made his first mark as a public writer suitable to the occasion, and competent to deal with the great medical question of special interest to Englishmen, as the chief merchant-adventurers and ocean-carriers in the world. It fell to him to review, in 1846, a report by Dr. Prus on "Plague and Quarantine" to the Academy of Medicine of Paris, the argument of which was against quarantine. He subsequently translated this report in order to place the facts and reasonings it contained within the reach of the English reader in a cheap and accessible form. His translation is entitled "Quarantine and the Plague, being a Summary of the Report on these subjects recently addressed to the Royal Academy of Medicine in Paris, with Introductory Observations, Extracts from Parliamentary Correspondence, and Notes." Dr. Milroy then came prominently into view as a publicist through the credit gained by him in performing this task, which was done with so much ability that he stood forth as an authority on all questions of epidemiology, at that time rising in public as well as in professional estimation as an important branch of medical and social science. His views were deemed the best adapted to enlarge commercial enterprise by abolition, or by great mitigation, of its chief restraint, quarantine, as well as to benefit the public health of the nation by trusting to sanitary measures alone to guard against the ravages of cholera and other foreign pestilences. Having gained the good opinion of statesmen, he obtained employment in the public service as a superintendent medical inspector of the General Board of Health, in 1849-50 and 1853-55; and when, in 1850, cholera first showed itself in our West Indies, he was sent by the Colonial Office to Jamaica to "inspect and report on the sanitary conditions of that island," which he did with promptitude to the satisfaction of the Government. He afterwards presented to the authorities the details of the origin and track of its great cholera epidemic, and of the social conditions of the natives, with recommendations of sanitary measures. In the spring of 1855 the War Office sent to the Crimea a Sanitary Commission, "with powers of entry into every hospital, infirmary, or receptacle of whatever kind for the sick and wounded, whether ashore or afloat," reporting the results of their inspection to the superior officers of the service concerned, and further "to see to the keeping of the harbour of Balaclava in a clean condition." A vacancy occurring in that Commission, Dr. Milroy was sent out to fill it, and he joined it in July. He proved himself an able coadjutor with Dr. Sutherland in the inspection of camps, hospitals ashore and afloat, of wharves and roads, wherever operations were being actively carried on from Scutari to Kertch. The recommendations of the Commission were in the right direction, and were such as would have been carried out by the Army Medical Department if it had been possessed of similar powers. There can be no doubt that their adoption contributed to the subsequent healthiness of the army, but in estimating their influence in this respect, it must be borne in mind that very marked improvement in the health of the army had manifested itself with the first advent of spring, before the presence of the Commission on the scene could have operated. The excessive strain imposed on the troops by the military exigencies and the want of adequate food and clothing during the winter had been relieved by a full supply of both, and the spirit of the troops had been aroused by the prospect of an early reopening of the batteries. When that took place the whole aspect of affairs was changed, and a good state of health was established in an army that had landed with epidemic cholera in its train, had fought and conquered with that dire foe in its ranks and then had passed a hard-worked and half-starved winter in the trenches outside a beleaguered city. After the capture another winter was passed in comfort and health; and when, in the following summer, the terms of peace were on the point of being settled, the Sanitary Commission was recalled. The report of its transactions was drawn up by Dr. Sutherland and Dr. Milroy. In 1858 the National Association for the Promotion of Social Science appointed a committee to inquire into the practice and results of quarantine in all parts of the world. The late Earl of Shaftesbury was president, and Dr. Milroy was honorary secretary of that committee. In April, 1859, a series of queries prepared by it was forwarded to the Foreign and Colonial Secretaries of State by Lord Shaftesbury for circulation among the consuls and colonial authorities. The replies were placed at the disposal of the committee, and the laborious task of examining, arranging, and digesting the information contained in them devolved on Dr. Milroy as secretary, and the results were communicated to the Board of Trade. These were published in Parliamentary Papers. The first, ordered to be printed Aug. 25th, 1860 (No. 568), was an "Abstract of Regulations in Force in Foreign Countries respecting Quarantine"; the second, ordered to be printed Aug. 21st, 1860 (No. 568-1), "Abstracts of Information Concerning the Laws of Quarantine"; and the third, ordered to be printed Aug. 6th, 1861 (No. 544), "Papers relating to Quarantine." These papers contain information not only regarding the laws and practice of quarantine, but also on the appearance and prevalence of the diseases for which it is imposed in various parts of the world. It is unnecessary to state that in them the views of the Epidemiological Society of London are fully displayed. He was a much-prized contributor to the columns of THE LANCET.

Eventually a life pension of £100 a year was granted to Dr. Milroy in recognition of his various services. From this period he devoted himself in retirement to his favourite studies, and to literature. By his influence with the Royal College of Physicians a committee was appointed to investigate the nature and imputed contagiousness of leprosy and yaws; and he was the author of the report of that committee presented to Parliament in 1873. Always abstemious and economical, he found himself in a position to present to the College of Physicians the sum of £2000 for the endowment of a Lectureship on Public Health and on Sanitation. Dr. Milroy lived to the age of eighty-one, retaining to the last his mental faculties, as well as an active interest in social matters of a beneficial tendency. He died at Richmond, in Surrey, on Jan. 11th, and was interred on the 15th in Kensal-green Cemetery, beside the remains of his beloved wife, whom he had survived about three years. He was a successful public benefactor, remarkable for his unostentatious and deferential characteristics, by which he secured the confidence and esteem of those associated with him. W. R. E. S.

PROFESSOR M. R. LEVI.

THE republic of medicine has lost an able and energetic citizen in Dr. M. R. Levi, clinical consultant in the Children's Hospital of Florence. He was but forty-five years of age, and fell a victim to one of those rapid pneumonias which, far more than fever, contribute to swell the mortality in Italy. Up to the 8th inst. he was at his post, lecturing with characteristic clearness and effect, and within a week he was "gathered to the majority."

His professional studies were commenced and carried on in the Medical School of Venice, where he had for his teacher the distinguished Professor Nahmias, whose researches in cholera have served so signally to enlighten Italian physicians and municipal bodies as to its origin and prevention. After graduation he was appointed Clinical Lecturer on the Diseases of Children in the University of Padua, in which capacity he acquired a reputation throughout the peninsula as an acute and successful consultant in that class of disorders. Having settled in practice at Venice, he did admirable work in the Hospital for Rachitic Children on the Lido; and at the International Medical Congress held in Florence in 1866 he was specially applauded for his exertions in behalf of the poor population of the lagunes, which culminated in the institution of the Ospizi Marini. He was an indefatigable coadjutor on the *Sperimentale*, the well-known organ of the Florentine Medical School, and his valuable contributions to its pages secured him in 1882 the appointment to the Clinical Professorship of the Diseases of Children in Florence, a subject he had made peculiarly his own. Year by year his clinic gained in professional repute, his success in tracheotomy, in croup especially, being attested by the statistics he published in his reports. For the last eighteen months his activity was certainly too intense, as manifested not only in his clinical and general practice, but in his scientific papers read before the various societies of Florence. At the Medical Congress held last autumn in Perugia he took a prominent part, and his friends thought they discerned in him the first foreshadowings of that physical waste that accelerated his demise. Their prevision, conveyed to him in kindly warning and remonstrance, had but little effect, for his participation in the transactions of the Florentine Medico-Physical Society and the Institute of Hygiene was more eager and extended than ever, until the fatal illness that carried him to the rear.

His loss will be keenly felt, not only by his colleagues and compatriots, but by the numerous English physicians who, first in Venice and latterly in Florence, have profited by his sound science and courteous hospitality.

ALFRED C. POST, M.D., LL.D.

DR. ALFRED POST of New York, whose death has recently occurred, was born in 1805, and, after receiving professional instruction at the New York College of Physicians and Surgeons, graduated in 1827. He afterwards studied at Paris, Berlin, and Edinburgh. In 1829 he commenced the active practice of his profession, and continued it until the week before his death. As early as 1836 Dr. Post was appointed one of the attending surgeons of the New York Hospital, and more recently was connected with the medical staffs of St. Luke's and the Presbyterian Hospitals. He was one of the founders of the medical department of the University of the city of New York, taking the chair of Surgery and Pathological Anatomy, and at the time of his death was President of the Medical Faculty and Emeritus Professor of Clinical Surgery in that institution. He was a member of the New York Academy of Medicine, serving it as vice-president; of the Pathological Society, once its president; and of many other American and foreign societies. Dr. Post was an impressive, terse, and explicit lecturer; a bold, steady, and self-reliant operator; and a lucid, logical, and classical writer. In actual practice for fifty-seven years, New York has by his death lost her oldest and one of her best known medical men.

FREDERICK ROW, M.D.

WE regret to announce the death of Dr. F. Row of Devonport, which occurred on the 20th inst. The deceased, who was born in 1811, received his early education at Devonport Grammar School, and studied for the medical profession in London, Paris, Edinburgh, and Dublin. In 1834 he became a Licentiate of the Royal College of Surgeons of Edinburgh and of the Apothecaries' Society of London, and in 1835 obtained the degree of M.D. at the Edinburgh University, afterwards commencing practice at Torpoint. Dr. Row formerly held a commission as surgeon to the 2nd Devon Rifle Volunteers, which post he resigned on being appointed a Justice of the Peace for the borough of Devonport. For many years he was a senior surgeon to the Royal Albert Hospital, and on resigning this position he was appointed consulting physician to the institution, an office which he held until his death. He took a great interest in everything that concerned the welfare of the town in which he resided, and it was mainly due to his energy that the Devonport Free Library was first brought into existence. In 1870, at a meeting of the Social Science Congress, Dr. Row read a paper, which was afterwards published, on Prison Discipline. He was a man of genial temper, and his decease will be long regretted by a large circle of friends.

SIGISMUND SUTRO, M.D., F.R.C.P.

BY the death on the 19th inst., from apoplexy, of Dr. Sutro the German community of London have lost one of their best known and most highly esteemed medical advisers. The deceased, who was a native of Bavaria, was born in 1815, and studied at Munich and Heidelberg, taking the degree of Doctor of Medicine at the former university in 1840. In 1859 he became a Member of the Royal College of Physicians of London, and in 1873 a Fellow of that body. For many years Dr. Sutro acted as senior physician to the German Hospital, and upon resigning that office he was appointed consulting physician. He was a member of several of the Medical Societies, and the author of several works, the majority of which relate to the German mineral waters and spas and to the progress of German medical science.

Medical News.

BRITISH MEDICAL SERVICE.—The following is the list of candidates who were successful for appointments as Surgeons in the Medical Staff of H.M. Army at the competitive examination in London on Feb. 8th and following days:

	Marks.		Marks.
Fayrer, J.	3045	Garner, C.	2325
Davidson, J. S.	3030	Marks, G. F. H.	2310
Will, J.	3025	Scott, G.	2310
Fallon, J.	2980	Greig, D. M.	2300
Moir, J.	2965	Donaldson, J.	2295
Salvage, J. V.	2940	Holycake, R.	2275
Bostock, E. A.	2935	Edye, J. S.	2270
Aldridge, A. R.	2930	Russell, J. J.	2240
Walker, C. P.	2770	Bate, L. A. F.	2230
Fowler, J. F. S.	2735	Allport, C. W.	2215
Macdonald, C. J.	2695	Barefoot, G. H.	2205
Burrows, J. R.	2650	O'Callaghan, D. M.	2180
Tatham, C. J. W.	2650	Windle, R. J.	2175
Austin, H. W.	2630	Wright, R. W.	2150
Clarkson, T. H. F.	2610	Knaggs, H. T.	2140
Kelly, R. B.	2600	Newland, T. R.	2125
Hone, H. St. G. S.	2580	Foott, R. E.	2110
Donegan, J. F.	2550	Traver-Smith, V. E.	2100
Keatly, J.	2550	Mathias, H. B	2095
Saunders, D. M.	2550	Hosie, A.	2080
Cattell, R. J. C.	2530	Buist, R. A.	2060
Bent, G.	2480	Watson, J. J. C.	2050
Cummins, H. A.	2450	Whaite, F. D.	2050
Deacon, J. G.	2450	Smyth, N.	2040
Marder, E. S.	2400	Trotter, W. J.	2030
Hennessy, D.	2395	Dowman, W.	2020
Whilty, M. J.	2390	Kiddle, W.	2020
Eckersley, E.	2380	Browning, T.	2000
Bailey, W. P.	2360	Cronin, C. S.	1980
Hall, R. J. D.	2330	Le Quesne, F. S.	1940

INDIAN MEDICAL SERVICE.—The following candidates for this Service were successful at the competitive examination held at Burlington House on Feb. 8th:—

	Marks.		Marks.
Pisani, L. J.	3365	Dawson, A. W.	2870
Thorold, W. G.	3260	Hudson, E.	2830
Hehir, P.	3240	Fooks, H.	2810
Basu, B. K.	3105	Robinson, W. H. B.	2800
Edwards, W. R.	3015	Sheppard, H. A.	2800
Daly, J. T.	2955	Deare, A. C.	2790
Bell, G. J. H.	2950	Evans, J. F.	2785
Sinhar, N. P.	2900	Mactaggart, C.	2710

Thirty-seven candidates competed for sixteen appointments; all were reported qualified.

NAVAL MEDICAL SERVICE.—At the competition for commissions in the Medical Service of the Royal Navy, held on Feb. 8th and following days in the Hall of the University of London, Burlington-gardens, the undermentioned gentlemen were the successful candidates:—

	Marks.		Marks.
Stericker, F. W.	3060	Apthorp, E.	2455
Bate, J. F.	2995	Hadden, H. J.	2380
Pryn, W. W.	2760	McDonnell, J. J.	2360
Kennedy, G. E.	2670	Webb, J. E.	2360
Barry, J.	2600	Thorpe, V. G.	2350
Pickthorn, A. J.	2535	Atock, M. H.	2345
Spiller, E. A.	2490	Meaden, E. H.	2320
Andrews, J.	2465	Dawe, J. H.	2310

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following gentlemen have recently been admitted Licentiates of the College:—

Pierce J. J. O'Connor, Joseph A. Scully, Patrick J. Sheridan, James G. Westlake, and Mándvivala Fakirji Kabaaji.

The following has been admitted a Fellow:—

James McCloghry, Surgeon, A.M.D.

THE annual general meeting of the National Health Society was held on the 23rd inst.

DIALECTICAL SOCIETY.—At Anderton's Hotel on Wednesday next, commencing at 8 P.M., there will be a debate on the Contagious Diseases Act.

BEQUESTS.—Sir William Kellett, Bart., has left £50 to the City of Dublin Hospital, and a similar amount to the Hospital for Incurables, Donnybrook.

THE Secretary of State for War has appointed Mr. W. L. Chubb to be Visiting Surgeon for Shorncliffe, under the Contagious Diseases Acts, 1866 to 1869.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—At a meeting of this Society on the 19th inst., a conjoint paper on the Protection of Milk from Contamination was read by Mr. A. Wynter Blyth and Mr. Alfred Spencer.

MEDICAL MAGISTRATE.—The Lord Chancellor has appointed Augustus Rowland Ticehurst, M.R.C.S. &c., of Silchester House, St. Leonards-on-Sea, a magistrate for the borough of Hastings.

THE St. Petersburg financiers have decided to erect a hospital of fifty beds as a memorial of the late Emperor Alexander II. The Town Council has presented a piece of ground in the Ekaterinhoff Park for the purpose.

AT the inauguration of the South-Western Sanitary Inspection Association, which took place at Putney on the 20th inst., Mr. Edwin Chadwick, C.B., delivered an address on the "Sanitation of London and the Suburbs."

YOUNG MEN'S CHRISTIAN ASSOCIATION.—Sir Joseph Fayrer, K.C.S.I., will deliver a lecture at Exeter Hall on Tuesday, March 2nd, on the subject of the "Natural History, Habits, and Diffusion of Cholera, and what may be done to prevent or mitigate it."

THE annual general meeting of the subscribers and friends of the East London Nursing Society was held on the 23rd inst. The object of this Society is to nurse the sick poor in their own homes by means of trained nurses.

ST. PANCRAS WORKHOUSE.—The guardians of the poor of the parish of St. Pancras have unanimously resolved to appoint an assistant to Dr. Dunlop, the medical officer of the workhouse of the parish. This workhouse now contains over 2000 inmates, over 1200 of whom are under medical care.

VACCINATION GRANTS.—The following gentlemen have received the Government grant for efficient vaccination: Mr. Charles Sage Ticehurst, of the No. 2 District of the Petersfield Union (second time); Mr. F. G. Stewart, of the No. 2 District of the Bodmin Union; and Dr. Gervis, Ashburton district (third time).

COUNTESS OF DUFFERIN'S FUND.—Her Majesty having signified to the Countess of Dufferin her intention of presenting medals to the most distinguished female licentiates in the medical schools of India, the central committee purpose awarding them in the following manner:—A gold medal will be offered for annual competition in each of the four Indian Universities—Bengal, Bombay, Madras and Lahore; students at the Agra medical school being allowed to compete at Lahore. The Viceroy has also placed five silver medals at the disposal of the National Association.

AT the annual meeting of the governors of the Newcastle-on-Tyne Sick Children's Hospital, on the 24th inst., Mr. Fleming intimated that, as the hospital was not in a suitable locality and was too small, he had decided to build a new one, with over double the accommodation and in a more salubrious locality, and to furnish it throughout.

WIGAN MEDICAL SOCIETY.—The annual meeting of this Society was held on Feb. 18th, 1886, and the following office-bearers and committee were elected for the ensuing year:—President: W. Berry, Esq., J.P., M.R.C.S. Vice-President: J. B. Stuart, Esq., F.R.C.S. Ed. Hon. Secretary and Treasurer: R. P. White, Esq., M.B. Ed., M.R.C.S. Committee: J. White, Esq., J.P., M.R.C.S.; W. C. Barnish, Esq., M.R.C.P. Lond.; N. Hannah, Esq., L.R.C.P. Ed.

ROYAL NORTHERN SEA-BATHING INFIRMARY, SCARBOROUGH.—The annual meeting of the supporters of this institution was held on the 20th inst. The report stated that the infirmary was open from May 1st to Dec. 12th, during which time 562 patients were admitted, being 39 more than in 1884, and the largest number that has been received in the institution in any one year since it was established. The income had amounted to £1578 and the expenditure to £1498.

KING'S COLLEGE HOSPITAL.—The report read at the annual court of the corporation of this hospital on the 24th inst. showed that during the past year the number of cases under treatment in the hospital had been 2205, and the number of attendances in the out-patient department 28,653. The deficit for the year amounted to £5032. On the 12th prox. a public meeting is to be held at the Mansion House to consider the question of the financial position of the institution.

THE HELEN PRIDEAUX MEMORIAL FUND.—At a meeting of the subscribers to this fund, presided over by Sir William Gull, on the 20th inst., it was resolved that the income derived from the sum now raised be given as a prize every second or third year to a woman who has already completed the ordinary course of medical education, to help her on to a further stage, and that it be called the "Helen Prideaux Prize." It was also resolved that the Dowager Lady Stanley of Alderley, Mrs. Garrett Anderson, and Mrs. Stanley Boyd be made trustees of the fund, and that the duty of awarding the prize be left absolutely in their hands.

THE SEAMEN'S HOSPITAL.—The fifty-sixth annual meeting in connexion with this hospital was held on the 24th inst., when the report showed that during the year 1551 patients had been under treatment, against 1751 in 1884; and the number of out-patients relieved was 5874, against 5329. The building has been rearranged, and now accommodates 258 patients, instead of 243 as formerly; the system of drainage has also been remodelled. Since the foundation of the institution 133,397 patients have been admitted, and of these 106,023 were discharged as cured and 7515 died.

HYDROPHOBIA IN PARIS.—There were, according to Dr. Dujardin-Beaumetz, 19 deaths from hydrophobia in Paris last year—a number higher than in previous years; and yet the number of stray dogs destroyed was also higher—viz., 5060. Of these 19 persons, 15 were males and 4 females. The time of incubation varied from 19 months (in the case of a young man of twenty-six) to 29 days (a child of eleven.) In only one case was the time of the bite unknown. Excluding that, and the exceptional case of 19 months, an average of about 2 months is arrived at for the time of incubation. As to duration of the disease, the extreme limits were 1 day and 8 days; average 3½ days. In no case were the lower limbs bitten.

THE DALRYMPLE HOME FOR INEBRIATES.—At a meeting of the British Medical Temperance Association, held on Feb. 24th, Dr. B. W. Richardson in the chair, Dr. Norman Kerr, consulting physician to this Home, gave a *résumé* of the results of his second year's experience. Seventy-eight cases had been admitted, thirty-seven under the Act and forty-one as private patients; of these, seven were doctors and five lawyers. There were also merchants, men of fortune, stockbrokers, farmers, clerks, military officers, &c. Of the sixty discharged, and whose after-history was known, one-half had been so much improved as to be able to fulfil the duties of their station in life. The success of the Home had exceeded Dr. Kerr's expectations.

Medical Appointments.

Intimations for this column must be sent DIRECT to the Office of THE LANCET before 9 o'clock on Thursday Morning at the latest.

ARMSTRONG, BENJAMIN, L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer for the Hainton District of the Louth Union.

BAKEWELL, R. H., M.D., has been appointed Visiting Physician to the Christchurch Hospital, New Zealand.

BRAUND, JAMES M., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Marhamchurch District of the Stratton Union.

CAPE, JOSEPH T., M.R.C.S., L.S.A.Lond., has been reappointed Medical Officer for the Halwell District of the Totnes Union.

COLTART, W. WILSON, L.R.C.P.Lond., M.R.C.S., has been reappointed Medical Officer for the Headley District of the Epsom Union.

COX, WILLIAM A., M.R.C.S., L.S.A.Lond., has been reappointed Medical Officer for the Banstead District of the Epsom Union.

DODSON, ARTHUR R., L.R.C.P., M.R.C.S., has been appointed Medical Officer to the Wandsworth and Clapham Union Workhouse.

HAINS, L. J. C., L.R.C.P.Ed., L.R.C.S., has been appointed Medical Officer for the Harberton District of the Totnes Union, vice Hains, resigned.

JOHNSON, H. SANDFORD, L.F.P.S.Glas., L.K.Q.C.P.I., has been re-appointed Medical Officer for the South Brent District of the Totnes Union.

OSBURNE, C. A. P., L.R.C.P.Ed., L.R.C.S., has been appointed Medical Officer for the Fourth District of the Church Stretton Union.

PIZEY, G. P., M.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer for the Ninth District of the Bedminster Union.

RANDLE, J. MAYNE, L.R.C.P.Lond., M.R.C.S., has been reappointed Medical Officer for the Ugborough District of the Totnes Union.

URSDELL, HENRY, M.R.C.S., L.S.A.Lond., has been reappointed Medical Officer for the Staverton and Rattery District of the Totnes Union.

WELLS, Sir T. SPENCER, Bart., F.R.C.S., &c., has been appointed Consulting Surgeon to the Hampstead Home Hospital and Nursing Institute, vice John Gay, F.R.C.S., deceased.

WILSON, J. E. C., L.R.C.P.Ed., L.R.C.S., has been appointed Medical Officer for the Clowance and St. John's District of the Parish of Stoke Damerel Union.

WILSON, S. M. W., M.R.C.S., L.S.A.Lond., has been appointed Consulting Surgeon to the West Norfolk and Lynn Hospital, vice Lowe, resigned.

Births, Marriages, and Deaths.

BIRTHS.

APPLEBE.—On the 22nd inst., at Pemberton House, Hay, Breconshire, the wife of E. A. Applebe, L.R.C.P., of a son.

BURN.—On the 21st inst., at Ecclesbourne, Bedford-hill, Balham, the wife of W. Barnet Burn, M.D.Lond., of a son.

DAVY.—On the 12th inst., at Woodland-road, Upper Norwood, the wife of Surgeon-Major F. Arthur Davy, M.D., Medical Staff, of a daughter.

JACKSON.—On the 17th inst., at 64, Cambridge-terrace, Hyde-park, W., the wife of Herbert F. Vaughan Jackson, M.R.C.S.Eng., L.R.C.P.Lond., of a daughter.

LAMB.—On the 21st inst., at Kensington-park-gardens, the wife of W. H. Lamb., M.B.Lond., of a daughter.

LEACROFT.—On the 21st inst., at Hartington-street, Derby, the wife of J. W. Leacroft, M.B.Aber., L.S.A.Lond., of a daughter (stillborn).

MATCHAM.—On the 11th inst., at Gladstone-street, Southwark, the wife of Alfred Matcham, M.R.C.S., L.R.C.P.Ed., of a son.

SWEETING.—On the 23rd inst., at 40, Charleville-road, West Kensington, the wife of R. D. R. Sweeting, M.R.C.S.Eng., and S.Sc.Cert.Cantab., of a daughter.

MARRIAGES.

DAUNT—GODDEN.—On the 20th inst., at the Parish Church, Croydon, George Daunt, L.R.C.P.Ed., L.R.C.S.Ed., fourth son of Nicholas Daunt, co. Cork, to Lilian Alice A., fourth daughter of Wm. Godden, of Hollington, South Norwood-park, Surrey.

LEY—NORRIS.—On the 17th inst., at Holy Trinity Church, Birchfield, by the Rev. Pelham Maitland, M.A., Henry James Ley, M.B.Edin., youngest son of the late Richard Ley, M.R.C.S., of Ringmore, Teignmouth, to Nellie Pratt, second daughter of Richard Norris, M.D., of Birchfield. No cards.

LYONS—CRUX.—On the 18th inst., at St. Luke's, Oseney-crescent, Surgeon-Major Frederick Lyons, Medical Staff, to Emily Pickering, only surviving daughter of the late Frederick Crux.

PEARSE—HEYLAND.—On the 27th ult., at St. George's, Hanover-square, Francis J. Pearse, younger son of Dr. Pearse, of St. George's-square, S.W., to Agnes, youngest daughter of the late Captain Langford Heyland, formerly 17th Lancers.

DEATHS.

HATCHETT.—On October 21st, at Blantyre, Lake Nyassa, East Africa, of fever, Frederick William Hatchett, L.S.A.Lond., youngest son of the late John Charles Hatchett, formerly of Newtown Lodge, Hungerford, Berks, and Preswylfa, Neath, aged 26.

HOUNSELL.—On the 22nd inst., at Woodlands, Torquay, Henry Strangway Hounsell, M.D.

LIVESEY.—On the 1st inst., of exhaustion, following rheumatic fever, Ernest Livesey, M.R.C.S.

MASSY.—On the 17th inst., at Powis-road, Brighton, Richard Tuthill Massy, M.D.

ORD.—On the 18th inst., at Paragon-place, Brixton-hill, S.W., George Ord, F.R.C.S., aged 84.

SUTRO.—On the 19th inst., at Finsbury-square, Sigismund Sutro, M.D., F.R.C.P., in his 71st year.

WORDSWORTH.—On the 22nd inst., at his residence, Harley-street, W., John Cawood Wordsworth, F.R.C.S., late Senior Surgeon to the Royal London Ophthalmic Hospital, Moorfields, second son of the Rev. Wm. Wordsworth, of Monk Bretton, Yorkshire, in his 63rd year.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

EXAMINATION OF CANDIDATES FOR HER MAJESTY'S ARMY, INDIAN, AND NAVAL MEDICAL SERVICES.

Medicine.

Tuesday, February 9th, 1886, from 10 A.M to 1 P.M.

1. A case for Critical Analysis and Commentary:—"A young man whose breath was not short generally, and who had always been used to active exercise, began to observe that on running long or fast the breathing would become noisy like that of a 'roaring' horse. For twelve months he had been in the habit of riding fast for several hours daily, believing he would thereby improve his breathing powers. On one occasion, having put his horse to full speed, he brought on a severe fit of palpitation, and his breath had been shorter ever since. During the past three months he had an occasional dry cough, and frequently a pain in the centre of the chest. He nevertheless persevered with his active exercise, but now chiefly walking; and one day when making some exertion with his arms in fencing, he was suddenly seized with extreme oppression of breathing, spasm, and panting. On recovering from this condition there followed frequent cough and shortness of breath, especially on any increased exertion, with occasional attacks of increased difficulty of breathing in the morning. He had lost strength and colour. Pulse 80 (weak and unsteady). On careful examination of the chest, the breath sounds were found distinct in every part, especially inspiration, which was louder and harsher than usual. No prolonged expiration, wheeze, or crepitus. Above the left scapula the breath and voice sounds were tubular. The heart sounds were very weak; and a slight venous murmur was heard in the neck. The movements of the chest, its shape, and percussion sounds were normal. Night attacks of difficult breathing continued, described as being in the throat and of a choking character. About a week after the first examination of the patient, and when the more severe symptoms had existed three months, there occurred a bad attack of breathing in the morning. For two days before that he had walked continuously for three hours and a half (endeavouring to improve his breath), and was so much exhausted that he could eat no food. Next morning, on awaking, he had the 'bad attack of breathing,' which almost suffocated him. He had felt exhausted and weak ever since, and could take very little solid food. On listening to the chest, the inspiratory sound was heard loud in every part, and somewhat harsh in tone, especially at the upper parts of the chest; but no laryngeal stridor or hoarseness such as is present in laryngitis. The tubular sounds were still distinct above and within the left shoulder blade; but abnormal pulsation could neither be heard nor felt in any part. Inability to take solid food added to the increasing weakness of the patient; and two days later he had fallen on the floor unconscious after a fit of difficult breathing with laryngeal spasm. On recovering consciousness, he remained free from cough and spasm; the pulse was steady and breathing tranquil, but accompanied with a laryngeal sound; and laryngeal spasms continuing to recur at shorter intervals tracheotomy was had recourse to; but the breathing was not relieved thereby, and death followed one hour and twenty minutes after the operation." State your views regarding the probable origin, the progress and development of the symptoms and physical signs in this case, with their mutual relationship, if any; lastly, give some explanation as to why tracheotomy failed to give relief.

2. A case for Critical Analysis and Commentary:—"Elizabeth R——, aged forty, was admitted into St. Thomas's Hospital, September 11th, 1876; married, with five living children, ages varying from five to sixteen years; three miscarriages, first twelve months after marriage—a three months' fœtus; the last four months before admission. General ichthyosis, but no history of syphilis. Habits not very temperate; ordered a pint and a half of beer daily, besides some spirits; patient had suffered from morning sickness independently of pregnancies. Nine months before admission vomiting became more frequent; had great pain across the stomach and in the back, with persistent diarrhœa, cough, loss of appetite and flesh. With these symptoms the abdomen began to swell. She remained in hospital until October 26th, and during this time her condition was as follows:—Emaciated; venous stigmata on cheeks; jaundiced tint of conjunctivæ; abdomen enlarged, measuring thirty-nine inches at umbilicus; liver much enlarged, measuring nine inches in right mammary line; and lower margin felt hard, sharp, and even below umbilicus; surface smooth; moderate ascites; frequent vomiting and constant diarrhœa; no sign of cardiac disease, but slight dulness and tubular breathing at apex of right lung; temperature at night usually 101° F.; occasional attacks of profuse epistaxis; no albuminuria. On leaving hospital she seemed better; no ascites, and no diarrhœa. One month after leaving hospital the abdomen began to swell again. Towards the end of January, 1877, diarrhœa returned; and on Feb. 20th, the patient was readmitted into hospital, her condition being as follows:—Very weak and emaciated; girth of abdomen thirty-seven inches and a half; liver still very large, measuring in the right mammary line nine inches and a half, and extending from nipple to below umbilicus; surface hard and slightly tender, generally smooth, but a large projecting mass felt in epigastrium; spleen enlarged; moderate ascites; constant diarrhœa (eight to ten watery motions, without pain, daily); no vomiting;

tongue unnaturally red and clean; appetite bad. Skin sallow and anæmic; no decided jaundice, but urine contained bile-pigment and one-eighth albumen. Almost constant epistaxis and greater fetor of breath; pulse 120; heart healthy. She became daily worse, and on March 2nd she vomited about a pint of dark blood; the ascites diminished slightly, but diarrhœa and epistaxis persisted, and on March 15th she died from exhaustion." Discuss the pathology and probable morbid anatomy of this case, and in doing so state, first, in inches, the ordinary extent of hepatic dulness in the right mammary line, and define the anatomical limits of the upper and lower margins of the liver in health in the same line; second, explain in detail the origin and development of the symptoms, physical signs, and your conclusions as to diagnosis; third, describe how you would treat such a case; and, lastly, in your account of what you expect to find (post mortem), give some explanation as to the possible or probable nature of the projecting mass felt during life in the epigastrium.

3. Describe the characteristic lesions in a typical case of enteric (typhoid) fever when death has taken place towards the end of the second week, and give an account of the stages through which the lesions may pass.

4. Finding a patient comatose and stertorous of whom you can obtain no history, you are required to diagnose as between narcotic and alcoholic poisoning, uræmia, epilepsy, or external injury on the one hand, and from apoplexy on the other. State the main points on which you would rely in distinguishing between these conditions.

5. What do you understand by "cardiac tonics"? Name the medicines used as such. Describe their action on the heart in full and in poisonous doses (defining such doses); and mention the kind of cases and the conditions of the heart in which cardiac tonics may be of use; and also the risks attending the administration of them.

Chemistry.

Tuesday, February 9th, 1886, from 2 P.M. to 4 P.M.

1. What is ammonia? Give its symbol. Describe some process by which it may be prepared.

2. Describe the action of chlorine as a bleaching and a disinfectant agent.

3. By what common properties are chlorine, bromine, iodine, and fluorine distinguished from the other elements?

4. To what extent may carbonic acid accumulate in the air of a room beyond the normal amount in the atmosphere without rendering the air of the room unfit for human respiration?

Zoology.

Tuesday, February 9th, 1886, from 4 P.M. to 6 P.M. (Not more than one question in each subject to be answered.)

1. Refer to its subkingdom, class and order the red coral of commerce.

2. Contrast the respiratory system of the whelk (*buccinum*) with that of the snail (*helix*).

3. What are the most important modifications presented by the sternum in birds? Give examples.

Botany.

4. Describe a typical vegetable cell and cite an example of a plant whose grade of differentiation never passes beyond that of a simple cell.

5. What is the most characteristic action of the leaves of plants on the atmosphere? How is this modified by the presence or absence of sunlight.

6. Point out the difference between a syncarpous and an apocarpous ovary. Give an example of each from genera contained in the Pharmacopœia.

Physics.

7. What is electrical induction? Describe the changes in which this phenomenon essentially consists.

8. Explain the formation of dew.

9. What is the law which expresses the loss of weight of a solid body when immersed in a liquid?

Surgery.

Monday, February 8th, 1886, from 2 P.M. to 5 P.M.

1. Describe the various conditions of an artery which may give rise to an aneurysm. Under what circumstances, in a case of popliteal aneurysm, would ligature of the femoral artery be imperative without waiting to test the effect of other measures?

2. What are the general external characteristics of the following calculi:—1. Uric acid. 2. Oxalate of lime. 3. Phosphate of lime. What is the explanation when two of these form a single calculus? Describe the microscopical appearance of crystals of oxalate of lime and uric acid.

3. What tissues does enchondroma most commonly affect? What are its general and microscopical characteristics?

4. Describe the causes, symptoms, and usual results of acute periostitis, and the treatment under each condition?

5. Describe the fractures to which the neck of the femur is liable, in what direction the force must be applied to produce either variety, and the treatment to be adopted in each.

6. What are the conditions known as "concussion of the brain," and in what respect do they differ from that of "compression"? What treatment should be adopted in "concussion of the brain"?

Anatomy and Physiology.

Monday, February 8th, 1886, from 10 A.M. to 1 P.M.

1. Certain bones enter into the formation of the orbit, describe the share which each bone takes in the construction of that cavity. Give a brief account of its contents, describing the relative positions of all the parts you name. (This does not include the anatomy of the eye.)

2. Describe the origin, distribution, and anatomical relations of the arteries and their branches which supply the foot with blood.

3. Describe the anatomical relations, connexions, and structure of the large intestine, giving also an account of its functions and of the processes carried on in that portion of the intestinal canal.

4. What are the origin, anatomical relations, distribution, and functions of the glosso-pharyngeal nerve and its branches?

5. Describe the dissection by which you would expose the lingual artery, giving an account of the relative position of neighbouring parts.

Medical Diary for the ensuing Week.

Monday, March 1.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Alex. Hill: On the Brain Mechanism of Smell and Sight.
ROYAL INSTITUTION OF GREAT BRITAIN.—5 P.M. General Monthly Meeting.
SOCIETY OF ARTS.—8 P.M. Prof. F. Guthrie: Science Teaching (Cantor Lecture).
ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M. Casual communications by Drs. W. St. George Elliott and J. C. Foran.—Dr. Dudley Buxton: Physiology of Nitrous Oxide.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. A. Hughes-Bennett: Spastic Paralysis. Election of Officers and Council at 8 P.M.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Annual Meeting. Election of Officers and Council for 1886-87. President's Address.

Tuesday, March 2

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Mr. Charles T. Newton: The Unexhibited Portion of the Greek and Roman Sculptures in the British Museum.
SOCIETY OF ARTS.—8 P.M. Mr. John Mackenzie: Bechuanaland and Austral Africa.
PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Shattock: Congenital Cystic Kidney.—Mr. Lockwood: Pistol-shot Wound of Cranium, &c.—Sir W. MacCormac: Tumour of Palate.—Mr. Bilton Pollard: Villous Tumour of Accessory Thyroid.—Dr. Gulliver: Malignant Disease of Thyroid in Myxœdema.—Mr. Pitts: Ossifying Sarcoma of Radius.—Dr. F. Taylor: Aneurysm of Septum Ventriculorum.—Dr. S. West: Cases of Aortic Aneurysm.—Mr. Clutton (for Dr. Floyer): Congenital Skin Tumour of Sigmoid Flexure. Card Specimens:—Dr. Payne (for Dr. Jacob of Leeds): Tumour of Finger.—Mr. Pollard: Dermoid Cyst of Testicle.—Dr. Ledlard: Senile Ovarian Blood-cyst and other specimens.—Dr. Turner: Hepatic Cells in Blood of Portal Vein.—Dr. Carrington: Mitral and Tricuspid Stenosis.—Mr. E. H. Fenwick: (1) Fibro-sarcomatous Polypi from Bladder; (2) Papilloma of Bladder.—Mr. Mekins: (1) Dislocation of Cervical Spine; (2) Carcinoma involving both Superior Maxillæ.—Dr. Drewitt: Heart and Pericardium from a case of Rheumatic Nodules.

Wednesday, March 3.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesdays and Thursdays, 1.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department, Tuesdays and Fridays, 9.30 A.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; and on Friday, 2 P.M.; and Saturday, 1 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Alex. Hill: On the Brain Mechanism of Smell and Sight.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Dr. Lewers: Case of Circumscribed Sarcoma of Uterus and Vagina.—Dr. Matthews Duncan: On Contraction, Inhibition, and Expansion of the Uterus.—Dr. George Coates: A case of Labour in a Primipara suffering from Mitral Disease.—Dr. Amand Routh: A case of Serous Perimetritis.
SOCIETY OF ARTS.—8 P.M. Mr. C. V. Boys: Calculating Machines.

Thursday, March 4.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. W. Boyd Dawkins: The Ancient Geography of Britain.
PARKES MUSEUM OF HYGIENE.—8 P.M. Mr. Shirley Murphy: Metropolitan Defences against Infectious Diseases.
HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Mr. R. Sisley: Retroperitoneal Sarcoma.—Mr. A. L. Silcock: Cystic Sarcoma of Mesentery simulating an Ovarian Cystic Tumour.—Mr. W. Adams: Chronic Rheumatic Arthritis especially affecting the Hip-joint.

Friday, March 5.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Alex. Hill: On the Brain Mechanism of Smell and Sight.
WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—8 P.M. Mr. Percy Dunn will show (1) Large Pulmonary Infarct; (2) Sarcoma of Testes and Cord; (3) Congenital Mitral Stenosis with General Cardiac Hypertrophy, weight of heart 27 oz.—Brigade-Surgeon Curran: Collection of Drawings and Photographs illustrative of Venereal Disease and Goitre in the Himalayas.—Mr. Swinford Edwards: On Urethral Fever, with Records of Three Fatal Cases.—Mr. Hurry Fenwick: On the Precautions to be adopted in the withdrawal of Residual Urine.
ROYAL INSTITUTION OF GREAT BRITAIN.—9 P.M. Dr. Alexander Macalister: Anatomical and Medical Knowledge of Ancient Egypt.

Saturday, March 6.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Rev. C. Taylor: The History of Geometry.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Feb. 25th, 1886.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Feb. 19	30·12	E.	34	33	...	37	33	...	Overcast
,, 20	30·19	N.E.	35	33	...	38	33	...	Overcast
,, 21	30·19	E.	36	34	...	39	33	...	Cloudy
,, 22	30·41	N.E.	35	33	...	40	32	...	Overcast
,, 23	30·35	E.	34	33	...	36	33	...	Snowing
,, 24	30·20	E.	29	...	...	37	26	...	Fine
,, 25	30·13	E.	35	33	...	...	28	...	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

MEDICAL SECRETS AND LAW COURTS.

P. E. J.—A medical man may be compelled in a court of law to divulge secrets communicated to him in his professional capacity. This is a matter beyond his choice or control, and involves no discredit to him, as the divulgence of secrets in vulgar ways of gossip, or short of the demands of the law, certainly would. In the particular case mentioned, and in the mental condition of the patient, the statements made to the medical man have very little value in themselves as evidence.

Dispenser.—1. We do not think any risk would be incurred by so doing.—2. Yes.

THE ARMY MEDICAL STAFF.

To the Editor of THE LANCET.

SIR,—In an annotation in your issue of the 6th inst. (p. 273), entitled "Medical Education in Russia," the burden laid on medical men by the State is commented on. I do not think the conditions so hard as those imposed by the British Government on officers of the Army Medical Staff, who voluntarily retire after ten years' service, with what they are pleased to call a "gratuity." These officers are liable to serve again in case of "national emergency" (i.e., whenever the Army Reserve is called out), until they complete the age of fifty-five years; so that a medical officer joining at the age of twenty-one and retiring at the age of thirty-one forfeits his liberty for twenty-four years for £1000, for which he has served ten years. While he is re-serving, he receives the pay of the rank in which he retired; but such fresh service only counts towards the period required for increased gratuity or for pension, five and ten additional years respectively. Is it likely a national emergency would continue for five years, or that such a series of emergencies would occur as would enable a medical officer, from time to time, to complete the additional periods required? A retired medical officer who has purchased a practice with his "gratuity" may be called on to re-serve. He must sell his practice, probably at a heavy loss, and rejoin with the foregoing glowing prospects before him! The State does not incur any expense in the education of Army Medical Staff officers, except that involved in the Netley course. Surely, ten years' service repays them for that outlay. I do not suppose they would give medical men the "gratuity" could they now secure their services without that inducement. I remain, Sir, yours faithfully,

W. J. LE GRAND,
Late Surgeon, Medical Staff.

Rudworth-street, S.E., Feb. 10th, 1886.

"PSORIASIS ECZÉMATBUSE."

To the Editor of THE LANCET.

SIR,—Allow me to suggest to your correspondent, "Sans Succès," the chrysophanic ointment, spread on muslin, prepared by P. Beiersdorf, Apotheker, Altona, Wohlers Allee, No. 40.

I am, Sir, yours truly,
J. S. GRUNB.

Ealing, W., Feb. 20th, 1886.

INSURANCE OFFICES AND INADEQUATE MEDICAL FEES.

Dr. Fred. E. Pearse of Frome forwards us a correspondence which he has had with the 'Sickness and Accidental Assurance Association, Limited,' including eleven or twelve letters, in which he had to fight, inch by inch, for a proper fee of one guinea, and at length got it only by the determined threat of the County Court. The office at first sent him 7*s.* 6*d.*, and justified itself by saying that this had been stated at the outset to be the fee given by the office. Dr. Pearse denied having received any such statement at the outset, and with proper dignity declined the successive advances of the office by half-crowns or more. His example is one to be followed.

Mr. George A. Hawkins-Ambler.—We are afraid the publication of the letter might give rise to a discussion on a matter which is scarcely within our province.

ATTENDANCE BY UNQUALIFIED ASSISTANTS.

To the Editor of THE LANCET.

SIR,—Allow me to state that Mr. Bowell of Hunslet is not a raw student from the Medical School working for a low salary, or for nothing but his board and lodgings, as are a large number of the assistants employed in Leeds, but is a gentleman forty-six years of age, of twenty-seven years' practical experience, who has attended 10,000 cases of midwifery, and has conducted solely two large practices in Hunslet for his uncle and cousin, the late Drs. Gisburn. I pay Mr. Bowell a salary of £150 per annum. It is true he lives in his own house (the property of his wife); but I fail to see any harm in that. He lived in it when he was conducting the practices named above, and had his name on the house, just the same as he has now. Since I obtained his services no alteration has been made, and it is well known in Hunslet that he is unqualified. He is, however, respected thoroughly by every class of the community. With one or two exceptions, he is on friendly terms with the medical men of the locality; and I can assure you that for years the leading consultants of Leeds have met him when he was in sole charge of critical cases. He always acts under my advice, and has less of his own way than when he was acting for his cousin, the late Dr. Gisburn. Dr. Gisburn, for certain reasons, was unable to see his patients frequently, and so most of the work fell upon Mr. Bowell, who was the means of saving his cousin's practice from being lost. In fact he was better known in Hunslet than was his employer. This is not so now. Where Dr. Gisburn went once to see a patient, I go thirty times or more, and everything is under my complete control. The people at Hunslet are very angry at the way Mr. Bowell and I have been treated in this matter, and it would certainly go hard with one or two professional parties if I mentioned their names in connexion with getting up this petty persecution. How many unqualified students in Leeds are entrusted with important cases whilst their masters are elsewhere? How many branch practices are carried on by unqualified gentlemen for miserable salaries? Let the profession at Leeds answer these questions; and then, if the majority are not guilty of illegal practices by employing unqualified assistants, let them put down one who does employ an unqualified gentleman.

In justice to myself, I ask the insertion of this letter in your valuable journal. I may also add that I can give all names, if necessary.

I am, Sir, yours faithfully,
H. ARTHUR ALLBUTT, M.R.C.P., &c.

Leeds, Feb. 18th, 1886.

THE CASE OF H. P. FREUND.

To the Editor of THE LANCET.

SIR,—The case of Herbert Percy Freund has on several occasions been alluded to in THE LANCET, and once more is specially mentioned in an annotation in your issue of the 20th inst. It may not be generally known that this unfortunate man, who has been repeatedly brought before the London magistrates for religious monomania, and has been by them sentenced to various terms of imprisonment, owes his breakdown to overstrain whilst working for the Bachelorship in Medicine of the London University. At the City of London School, where he was a schoolfellow of mine, he was remarkable for his jovial good humour and geniality. Whilst holding a good position in the sixth form he won the St. Thomas's Hospital Scholarship, which covered the cost of the fees of his medical curriculum on the condition of his successfully passing his examination when due. He was consequently most anxious not to fail from the fear that he might thus lose his scholarship. The fact that in spite of his anxiety he passed the First M.B. Lond. in 1874 within a year and three-quarters of the date of the commencement of his medical study was sufficient proof of his ability, more especially as he secured Honours in the Preliminary Scientific Examination at the end of his first year. The strain, however, told, and shortly after the First M.B. Examination he became eccentric and depressed, took to ascetic habits and a solitary life, and was unable to continue study, becoming later on a confirmed religious monomaniac. May I ask whether something could not be done for him, at least, by old members of the City School (I believe he belonged to the "John Carpenter Club") or of St. Thomas's Hospital, if only in the way of placing him in an asylum, so as to prevent the scandal of his frequent appearance in the police courts. I for one would be very glad to help or to hear of others similarly disposed. I am, Sir, yours faithfully,

W. P. MEARS, M.D.

University of Durham College of Medicine, Newcastle-on-Tyne, Feb. 20th, 1886.

INDISCRIMINATE SALE OF NARCOTIC POISONS TO THE PUBLIC.

To the Editor of THE LANCET.

SIR,—So many cases of poisoning have been reported of late in the medical and daily papers, that it is high time something was done to put a stop to the indiscriminate way in which chemists supply narcotic and other poisons to the public at large without medical order or prescription.

Two cases have within the past three months come prominently before my notice on board ship, which tend to prove how easy a thing it is for a layman to become possessed of dangerous and subtle poisons. Both cases occurred on board one of the Cape mail steamers. The first was a woman (a third-class passenger) who was proceeding to the Cape. Having occasion to visit her in her cabin, I was astonished to find a quart bottle full of laudanum, which she took twice daily in tablespoonful doses. She told me she never had the least difficulty in getting the laudanum at the chemist's, and as soon as the bottle was finished she had it refilled. This woman was undoubtedly afflicted with that terrible opium craving, but she was able to purchase, only too easily, the drug which will so surely cause her complete dissolution. The other case was a young gentleman of considerable fortune, who was taking a voyage to the Cape for the benefit of his health. He had with him two large bottles of solution of morphia, which he procured at a chemist's before leaving England, and he was in the habit of taking about sixty drops of this nearly every night at bedtime, to induce sleep, as he told me. This young man was strongly addicted to drink, and frequently retired to bed in a half intoxicated condition; whilst in this state he would pour out the morphia solution into a tumbler, add some water and drink it off, afterwards retiring to bed. Fortunately for him no ill-effects followed; but how different might have been the result!

These are two cases only out of many which I have observed on board ship, and they go far towards showing that we are not likely to see our mortality list from poisoning diminished so long as the public are supplied wholesale with these narcotic and dangerous poisons. Now that our profession, numerically speaking, is so much better represented in Parliament, let us hope that at least one of our medical brethren in Parliament will find time to turn his attention to this most important subject.

I am, Sir, yours very truly,

HERBERT E. WRIGHT, L.R.C.P., &c.,
Feb. 17th, 1886. Senior Surgeon, Castle Mail Packets Co.

Physician and Surgeon.—A medical and a surgical qualification from any of the Royal Colleges will entitle their possessor to the privilege mentioned. These diplomas can be obtained in either division of the United Kingdom.

G. P. is the best judge of the proper fee to be charged. There is no rule that would apply, apart from the circumstances of the special case.

A QUESTION IN MEDICAL ETHICS.

To the Editor of THE LANCET.

SIR,—Your decision in the following case would be valued:—

A is called in to see B's wife, prescribes for her, and gives directions notifying that the symptoms will probably not completely subside within a month. Eight days afterwards, at the third visit, A is understood to consider the patient so much better that his visits are then discontinued. Within a week or so, the sickness returning as bad as at first, B sends for C, without saying anything to A or C. When A discovered this he waxed wroth, but B justified himself on the grounds that A had ceased to attend. Is this justification sufficient, or does B owe A an apology? It may be mentioned that no fees have passed, and that B had been on occasions a patient of both A and C, but that Mrs. B, being a bride recently arrived, had not been a patient of either before.

I am, Sir, yours truly,

Feb. 23rd, 1886. ALPHA.

*** B did not act with candour and consideration to A. He is not to be justified on the plea that A's attendance had ceased. He owes an apology to A. C owes it to A to say as much to B as we have said of his conduct.—ED. L.

A Subscriber.—Supposing the case to be as stated, A is very badly used by B, and would be justified in seeking some legal redress if he cannot prevail on him to submit the questions in dispute to friendly arbitration.

H. W. H.—Dr. Weir Mitchell of the United States has published a book on the subject.

"MUMPS."

To the Editor of THE LANCET.

SIR,—Allow me, in answer to Dr. Hutchinson's request for information on the above subject (THE LANCET, Feb. 20th, p. 382), to say that, in my opinion, the rule referred to is a good one, and should be enforced against all infectious diseases. The initial stage both of mumps and of measles is highly infectious. School officials should not allow children to attend when any members of that family are ill, even with sore-throat, until the nature of the illness is ascertained, and never while there is infectious illness at home. I wish this was the rule in all schools.

I am, Sir, your obedient servant,

Feb. 23rd, 1886. WILLIAM SQUIRE, M.D.

MEDICAL ETHICS AND THE MEDICAL INSTITUTION AT LIVERPOOL.

We learn from a paragraph in the *Liverpool Mercury* of Feb. 5th, that at a meeting of the Medical Institution a committee of the leading medical gentlemen of the city was chosen to investigate charges brought against a medical officer of one of the charities of performing reckless operations without consultation with his colleagues, whose name and eminent position lend confidence to any charity with which they are associated. This is a serious paragraph to appear in a daily paper, and we should like to know more of the facts which constitute its explanation.

Vindicia.—1. There is no absolute rule of co-operation between a principal and his assistant, except such as is implied in their essential relationship. A principal is always entitled and expected to supervise cases, however competent his assistant may be. The only thing necessary in such relations is mutual respect and consideration.—2. We cannot give the composition of the tincture referred to.

W. H. O. has not enclosed his card.

"FRIENDLY SOCIETIES' MEDICAL INSTITUTIONS."

To the Editor of THE LANCET.

SIR,—There is sure to turn up some opponent to almost every reformer; and I cannot conceive anyone writing in support of the above institutions. Your correspondent, "Medical Officer (F.S.M.I.)," who writes in your issue of to-day, has not had much experience of the working man, or he would not be so ready to uphold this system of hard labour for our profession. I have been connected with two of the largest amalgamated societies in England, as one of their medical officers; and I can safely pledge myself that so long as I can support myself in any other employment I will never accept office under them again. The work is hard, unthankful, unprofitable; insults, abuse, and inconsiderateness abound. As to members being qualified to receive the benefits of such institutions, there is a shameful disregard as to conditions of admission. New members are almost forced upon the doctor; because if they are not passed, or receive certificates of any kind when they want them, there is sure to be a "row" and some fault-finding, either in the club or committee, with the medical officer. Besides, many outsiders who are well able to pay for private medical attendance join as dispensary members, paying very limited charges, having equally as much benefit as club members, and certainly swallowing more physic than they could obtain for twenty times the amount from a private practitioner. I believe that the club system has done more to ruin our profession than enough. I do not say that the profession is not to blame; but this degrading and "lumbago" sick-certificate work is becoming a working-man's privilege, and as a result bringing contempt on us. No one can deny that there are some decent working-men who are averse to taking advantage of our cloth; they are exceptional. Lastly, the persons who are reaping a rich reward out of our labour are the representatives of these associations. There is a secretary, treasurer, president, vice-president, and committee, all of whom are paid out of the subscriptions. Hence the doctor has to do more work to support these gentlemen.

I am, Sir, yours faithfully,

Feb. 20th, 1886. A RETIRED CLUB-ASSOCIATION DOCTOR.

L.S.A.—Not in the present state of the law.

Dr. Lewers.—In an early number.

"SYMPATHETIC IRRITATION OF THE PNEUMOGASTRIC."

To the Editor of THE LANCET.

SIR,—Upon the principle that giving tone to the nervous system lessens its irritability generally, and believing as I do that this is best and most speedily accomplished by full doses of quinine, especially if good sleep be procured at the same time, I would advise your correspondent, Dr. Towers-Smith, to give to his patient the third part in a wineglass of water of the following mixture every night:—℞ Disulphate of quinine, ʒss.; dilute hydrobromic acid, ʒiss.; hydrate of chloral, ℈ii.; syrup of oranges, ʒvi.; to three ounces of water. If after giving the above three doses there should still be irritability, an addition may be made of ten minims of the solution of morphia to each dose, and the three doses repeated.

I am, Sir, yours truly,

Feb. 22nd, 1886. A READER OF "THE LANCET."

Mr. Dyer.—The qualifications named are undoubtedly high, but qualifications only in medicine.

USE OF IODIDE OF POTASSIUM IN ANEURYSM.

To the Editor of THE LANCET.

SIR,—The use of this drug in heroic doses for the treatment of aneurysm is somewhat older than Dr. Burney Yeo seems to be aware of. In the wards of the Royal Infirmary of Edinburgh Dr. Warburton Begbie had a number of cases treated in this way, some of the details of which I remember very well, as early as 1861–62. Many of my fellow-students of that time undoubtedly will remember the Highland packman, Macalpin, who had a large aneurysm perforating his sternum, and who yet was able to do the hard work of his business so long as he was under the influence of iodide of potassium without any progress of the disease. I do not know if the treatment was originated by Dr. Warburton Begbie, but certainly he had it in habitual employment, and was extremely successful with it.

I am, Sir, yours faithfully,

Birmingham, Feb. 7th, 1886. LAWSON TAIT.

INTERMITTENT ALBUMINURIA WITH OXALURIA.

To the Editor of THE LANCET.

SIR,—May I say in your valuable columns regarding the coincidence of intermittent albuminuria with oxaluria that I have often found these symptoms follow the repeated ingestion of sauces or pies made of the stalks of common rhubarb, sold at the greengrocers' after January in each year. It was the practice of students at Yale Medical School in former days to secure fine large crystals of oxalate of lime for microscopy by eating these foods and collecting the crystals from their own urine subsequently. The practice was attended with discomfort to many from prolonged backache and irritable bladder, and in these cases I have found albuminuria coincide with the oxalates, lasting while the rhubarb was indulged in. I have good reason for thinking that cider, drunk freely, is competent to induce similar symptoms.

I am, Sir, very respectfully yours,

Ilford, Feb. 22nd, 1886. H. W. JONES, M.A., M.D. (Yale, U.S.A.).

Mr. H. Martin, M.B.—This being the first examination of surgeons of medical staff for promotion to surgeon-major, the questions for examination have not yet been published. Many years ago, when the examination was in force, the questions were published in the departmental Blue Books.

Dr. James Adam.—Yes, shortly.

LONDON FEVER HOSPITAL.

To the Editor of THE LANCET.

SIR,—In the report of the annual meeting of the governors of this institution, which appeared in THE LANCET of last week, the paragraph beginning—"The expenditure amounted to £3543, which was an increase of £1849 over that of the preceding year," should read was a *decrease*.

I am, Sir, your obedient servant,

Feb. 23rd, 1886. E. BURN CALLANDER, Sec.

SCARLET HOSIERY.

To the Editor of THE LANCET.

SIR,—Will you allow me to draw the attention of the medical profession to the presence of arsenic in scarlet socks and stockings? A friend of mine suffered rather severely last year by wearing such a pair; and only last week I extracted two decigrammes of the poison from one pair, and a decigramme and a half from another. Surely, manufacturers should be compelled to send out their goods worn next to the skin free from a poison so easily absorbed.—I am, Sir, yours obediently,

Marylebone-road, N.W., Feb. 17th, 1886. JOHN WOODLAND.

Mr. A—— (Cheapside) is thanked for forwarding the cards.

Dr. Blenkinsop.—Yes, if not too long.

E. W. B.—No.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Fenwick, London; Dr. Creighton, London; Dr. Charteris, Glasgow; Mr. Davies-Colley, London; Dr. Cheadle, London; Dr. Ernest Sansom, London; Mr. C. S. Kilner, Bury St. Edmunds; Dr. Mundie; Mr. J. P. Lowe, Bath; Mr. Hobson, Leeds; Dr. Haslam, Birmingham; Dr. Mapother; Mr. Grubb, Ealing; Mr. L. Ash, Holdsworthy; Dr. F. E. Pearse, Frome; Dr. Herschell, London; Mr. Dunlop, London; Dr. Philips, Bournemouth; Dr. Mears, Newcastle-on-Tyne; Surg.-Major Jagoe, Londonderry; Mr. J. Dyer, London; Mr. Hawkins-Ambler, Kirkburton; Mr. H. Symonds, Oxford; Messrs. Pease and Pratt, Darlington; Mr. J. Startin, London; Mr. T. H. Morse, Norwich; Dr. J. A. Lindsay, Belfast; Mr. F. P. Atkinson, Surbiton; Mr. H. A. Allbutt, Leeds; Mr. Salway, London; Mr. Arnold, Providence, R.I.; Mr. H. J. Buck, London; Dr. Spender, Bath; Mr. Meadows, Hastings; Mr. G. Shirres; Mr. Black, Edinburgh; Mr. Tomkins, Leicester; Mr. Ellis, Shipley; Dr. Kreider, London; Dr. Adam, London; Dr. Blenkinsop, London; Mr. Berry, Wigan; Dr. Clement Dukes, Rugby; Mr. J. L. Kerr, Manchester; Dr. Ainslie Hollis, Brighton; Mr. Glendinning, London; Dr. Barnes, London; Mr. A. Sutro, London; Mr. Johnson, Bingley; Mr. F. Fowke, London; Mr. Blomfield, Paris; Miss Dora Doone, London; Fleet-Surgeon Norbury, Plymouth; Mr. A. Powell, Worcester; Mr. Crassweller, London; Dr. Pavy, London; Mr. R. Harrison, Liverpool; Dr. H. W. Jones, Ilford; Mr. J. B. Crozier, London; Mr. Vincent Richards; Dr. Squire, London; Mr. Callander, London; Dr. Murrell, London; Dr. O. Pritchard, London; Mr. J. A. Philip, London; Mr. Hastings, London; Messrs. Loeflund and Co., London; Mr. Juler, London; Mr. Heyland, Kingstown; Mr. Woods, Sligo; Messrs. Hodge and Co.; Mr. Blumer, Stafford; Dr. Cashey, Jersey; Mr. Wood, Chelsea; Dr. Holmes; Dr. Macnaughton Jones, London; Rev. H. Grantham, Tring; Messrs. Allen and Hanburys, London; Mr. Barron, Sheffield; Mr. Slagg, Presteigh; Mr. Hambly, Bristol; Messrs. Toome and Co., London; Messrs. Oliver and Boyd, Edinburgh; Messrs. Ford and Co., London; Messrs. Smith and Son, Manchester; Mr. Jeaffreson, Newcastle; Mr. Sheedy, Stockton-on-Tees; Dr. Carson, Oldham; Mr. Freeman, London; Messrs. Nelson, London; Mr. Hanbury, Bristol; Mr. Claxton, Ely; Messrs. Beale and Son; Mr. Logan, Newcastle; Mr. Sampson, York; Mr. Graham, Bristol; Mrs. Morgan, Clevedon; Mr. Long, Sherborne; Mr. Davies, Cardigan; Dr. Jacob, Leeds; Alpha; A Surgeon; Vindiciæ; The Director-General of the Army Medical Department; The Director-General of the Medical Department of the Navy; Nemo; L. A., Chester; H. W. G.; Medicus; E. W. B.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Gamgee, St. Leonards; Mr. Bagshaw; Mr. Allinson, Dewsbury; Mr. Pope, South Shields; Mr. Taylor, Sheffield; Mr. Ashworth; Mr. Davenport, London; Mr. Soper, Dartmouth; Mr. Fulton, Toronto; Mr. Groom, Herne Bay; Mr. Ley, Teignmouth; Mrs. Hall, Ross; Mr. Wynne, Eccleshall; Mr. Curme, Childe Okeford; Messrs. Maclachlan and Co., Edinburgh; Mr. Hincheliffe, Shrewsbury; Dr. Jones, Llanfairfechan; Mr. Thom, Norwich; Mr. Orme, Bristol; Mr. Priestman, Newcastle-on-Tyne; Mr. Shannon, St. Mary Cray; Mr. Aveling, Paddington; Mr. Webster, Brighton; Messrs. Macmillan and Co., London; Mr. Kirkby, Leeds; Mr. Poole, Moreland; Mr. Glascote, Manchester; Mr. Charlesworth, Oldham; Dr. Nedwill, Christchurch, New Zealand; Messrs. Paterson and Co., London; Messrs. Farwig and Co., London; Mr. Carmoul, Dumfries; Dr. Dowding, Bournemouth; Mr. Jones, Aberystwith; Miss Alston, Roath; Mr. Harvey, Cairo; Mr. Townsend, Exeter; Messrs. Thew and Sons; Mr. Baker, Birmingham; Dr. Shortridge, Honiton; Mr. Hamill, Tamworth; Messrs. Read and Co., Bristol; Mr. Robertson, Edinburgh; Mr. Kerr, Glasgow; Mr. Goodwin, Maidstone; Mr. Casella, London; Mr. Jones, Mountain Ash; Dr. Testi; Dr. Eberle, Thirsk; Mr. Davison, Buenos Ayres; Mr. Morgan, Hornsey; Mr. Miller, London; Mr. Hunter, Hammersmith; Mr. Beckman, London; Messrs. Porteous and Co. Glasgow; Mr. Bassett, Manchester; Mr. Lea, Exeter; Miss Minks, Chelsea; Dr. Wright, Romford; Mr. Disney, Halesowen; Dr. Lewers, London; Mr. Tarbut, London; Mr. Pixton, Ramsgate; Mr. Cresswell, Yarmouth; Mr. Evans, Penybont; D., Westbourne-terrace; A. B., Guildford; M.B., London; W. M., Manchester; Beta; Zeta; A. B. C.; X. Y. Z., Bath; Medicus, Haverfordwest; C. V.; Chemicus; Lady Superintendent, Bath; Alpha, Carlton; A. B., Ramsgate; Surgeon, Leeds; Lady Superintendent, Jersey; A. E., Beckenton; X. Y. Z., Hammersmith; Delta, Castleford; Miner, Sheffield; Galen, Hastings.

Bristol Mercury, Western Guardian, Chicago Daily Inter Ocean, Glasgow Evening News, Pendleton Reporter, New Zealand Tablet, Western Daily Mercury, Bombay Gazette, Lynn Advertiser, Bury Post, Bath Herald, Spitalul Révistă Medicală, &c., have been received.

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